

## ABSTRACT

Title of Document: THE ROLE OF U.S. TECHNOLOGY  
TRANSFER AND FOREIGN INVESTMENT  
IN EAST ASIA AND THE SOVIET BLOC IN  
OPENING CHINA'S DOOR IN 1979

Dennis K. Karr, Master of Arts, 2013

Directed By: Professor David B. Sicilia, Department of  
History

The most radical component of China's Open Door economic policy in the late 1970s was its encouragement of joint ventures and other foreign direct investment (FDI).

Although scholars have studied the impact of the new policy on China's economy and on the global economy, few have considered the background of the reforms. Drawing from relevant American business archives, contemporary news reports, and other primary sources, I argue that China's reforms in 1979 were likely influenced by three important dynamics: contributions of American joint ventures and other FDI to China's economically successful neighbors in East Asia and the attractiveness to China's reformers of enabling similar contributions in China; contributions of American joint ventures and other FDI to the Eastern European countries aligned with the Soviet Union, coupled with China's competition with the Soviet Union for expanded economic relations with the U.S.; and interactions between American leaders and businesspeople with Chinese counterparts.

THE ROLE OF U.S. TECHNOLOGY TRANSFER AND FOREIGN INVESTMENT  
IN EAST ASIA AND THE SOVIET BLOC IN OPENING CHINA'S DOOR IN  
1979

By

Dennis K. Karr

Thesis submitted to the Faculty of the Graduate School of the  
University of Maryland, College Park, in partial fulfillment  
of the requirements for the degree of  
Master of Arts  
2013

Advisory Committee:  
Professor David B. Sicilia, Chair  
Professor James Z. Gao  
Professor Colleen Woods

© Copyright by  
Dennis K. Karr  
2013

## Dedication

I dedicate this thesis to my wife, Sharon, with gratitude for her interest in my work and encouragement for my efforts.

## Acknowledgements

I thank Professor Robyn Muncy for her very helpful observations and advice on an earlier version of this work. I thank Professor Colleen Woods for her thoughtful observations and questions. I thank Professor James Z. Gao, Professor Marlene Mayo (retired), and Professor Eleanor Kerkham (retired) for their instruction and advice and for serving as inspirations for my study of East Asian history. In particular, I thank Professor David B. Sicilia for his instruction, advice, and direction, and especially for serving as my mentor.

## Table of Contents

Dedication.....	ii
Acknowledgements .....	iii
Table of Contents .....	iv
Chapter 1: Introduction.....	1
Chapter 2: U.S. Activity in East Asia.....	13
Chapter 3: U.S. Involvement in the Soviet Bloc .....	63
Chapter 4: Direct Contact Between the United States and China .....	93
Chapter 5: Conclusions.....	110
Bibliography .....	118



## Chapter 1: Introduction

“We do not allow foreign capital to exploit China’s resources nor do we run joint enterprises with foreign countries, still less beg them for foreign loans.”

(*Peking Review*, 1977)<sup>1</sup>

“After the smashing of the Gang of Four, the Central Committee of the Chinese Communist Party formulated the policy of opening to the outside world and of introducing foreign investments. Thus the purchase of advanced foreign technology, machinery and equipment has developed into the acceptance of foreign loans and then into permission for foreign firms to build factories or establish joint ventures with China on Chinese soil within prescribed limits. As an important measure to accelerate the four modernizations, this will also enhance our capabilities to build the country through self-reliance.”

(Chinese Economist Xue Muqiao, 1986)<sup>2</sup>

China launched dramatic and wide-ranging changes in its economic policies beginning in 1978 in a comprehensive effort to improve its domestic economy, increase per capita income, improve its standing in the world economy, modernize its agriculture, industry, defense, and science and technology (called “the Four Modernizations”), and strengthen its geopolitical security. Reforms dramatically changed many aspects of China’s economy, marking China’s efforts to turn away from the central planning-dependent economic model of the Soviet Union. For example, market demand began to supplement central planning. Farmers were allowed to grow more food than required by the central plan and keep or sell the surplus. Some state-owned enterprises were privatized. Some administrative authority was decentralized. Capital allocation by the state planning administration

---

<sup>1</sup> *Peking Review*, No. 9, February 25, 1977, p.18, as quoted in Margaret Pearson, *Joint Ventures in the People’s Republic of China: The Control of Foreign Direct Investment Under Socialism* (Princeton: Princeton University Press, 1991), 51.

<sup>2</sup> Xue Muqiao, *China’s Socialist Economy*, rev. ed. (Beijing: Foreign Languages Press, 1986), 244.



was shifted to encourage more production of consumer goods and less spending on heavy industry. Incentives were developed to reward workers for their output rather than rewarding all workers from the same “iron rice bowl.” Most importantly, China’s leaders announced a new willingness to import new methods and technology from foreign suppliers in order to accelerate China’s modernization, which became known as its new “Open Door policy.”<sup>3</sup>

The most revolutionary of the changes brought by the new Open Door policy was the adoption in 1979 of the new “Law of the People’s Republic of China on Joint Ventures” that allowed jointly owned business enterprises, commonly called joint ventures, between Chinese and foreign firms.<sup>4</sup> In addition to joint ventures, which are a form of foreign direct investment (FDI), the new Open Door policy also allowed other forms of FDI in order to draw foreign investment capital into China. Historian Margaret Pearson noted, “As part of this new ‘open’ policy, China embarked on a strategy to use private foreign capital to spur economic development.”<sup>5</sup> Scholars Samuel P.S. Ho and Ralph W. Huenemann explained that the essence of this new policy was “a quest for accelerated economic development through the adaptation and diffusion of foreign technology,” and they argue, “There was nothing new in China’s desire to modernize. What was new was the announcement that China would turn to

---

<sup>3</sup> Samuel P.S. Ho and Ralph W. Huenemann, *China’s Open Door Policy: The Quest for Foreign Technology and Capital* (Vancouver: University of British Columbia Press, 1984), 1-13.

<sup>4</sup> Otto Schnepp, Mary Ann Von Glinow, and Arvind Bhambri, *United States-China Technology Transfer* (Englewood Cliffs, NJ: Prentice Hall, 1990), 18.

<sup>5</sup> Margaret Pearson, *Joint Ventures in the People’s Republic of China*, 3.

Western developed economies for advanced technology and assistance to achieve its objectives.”<sup>6</sup>

China’s changes in policy converged with a twenty-year trend of increased activity in joint ventures and foreign direct investment in both developed and developing countries around the world by American firms. The reforms in China were highly complementary with the changes that had occurred in the American business community. The American shifts were outwardly directed, seeking opportunities for American capital and technology outside of the United States. The Chinese reforms were inwardly focused, seeking to draw in foreign capital and technology. This convergence powerfully altered the industrial activity and economics of both countries. Following the reforms in China, the United States accelerated its transition in the 1980s and 1990s to deindustrialization, off-shoring manufacturing to foreign locations including Chinese joint ventures, and subsidiaries in China of U.S.-based corporations. China transitioned from a poor, inwardly focused nation to a global superpower, fueled by exports manufactured with foreign technology. Was this an “accident of world-historical significance” as Professor David Harvey postulated, or did the joint venture and foreign direct investment activity of American companies in the 1960s and 1970s influence the change that occurred in China in 1979?<sup>7</sup> This thesis investigates how the activities of American business enterprises in Asia and the Soviet Bloc leading up to 1979 likely influenced China’s policy changes. A definitive answer might only be determined by accessing

---

<sup>6</sup> Ho and Huenemann, 7.

<sup>7</sup> David Harvey, *A Brief History of Neoliberalism* (New York: Oxford University Press, 2005), 120.

personal diaries and the Chinese archives that document the thoughts of the Chinese reformers and the internal deliberations between the reformers prior to the policy changes, but that research is not possible at this time. Drawing from relevant American business archives, contemporary news reports, and other primary sources, I argue that China's reforms in 1979 were likely influenced by three important dynamics: contributions of American joint ventures and other FDI to China's economically successful neighbors in East Asia and the attractiveness to China's reformers of enabling similar contributions in China; contributions of American joint ventures and other FDI to the Eastern European countries aligned with the Soviet Union, coupled with China's competition with the Soviet Union for expanded economic relations with the United States; and interactions between American leaders and businesspeople with Chinese counterparts.

Because the economic reforms in China resulted in enormous global implications, scholars have published detailed analyses of the changes in policy. Many studies address the impacts of the changes in China's policies on China's economy, on the global economy, and on China's relationship with other countries, including the United States. However, most of these studies begin their analysis in 1978, when the first policy changes were announced and implemented and do not investigate the influences that led to the reforms, or they discuss the background of the reforms only briefly and narrowly.<sup>8</sup>

---

<sup>8</sup> Peter J. Buckley, *Foreign Direct Investment, China and the World Economy* (New York: Palgrave Macmillan, 2010); Galina Hale and Cheryl Long, *Foreign Direct Investment in China: Winners and Losers* (Hackensack, NJ: World Scientific Publishing, 2012); Ho and Huenemann, *China's Open Door Policy*; Yasheng Huang, *FDI in China: An Asian Perspective* (Hong Kong: Chinese University Press, 1998);

Historian James Z. Gao argued that the threat posed by the Soviet Union to China's security caused China to pursue rapprochement with the West after 1969 and to accept the terms of normalization in relations offered by the United States in December 1978.<sup>9</sup> I argue that Soviet access to superior American technology through technology transfer during the period of détente posed a threat to China's security throughout the 1970s and that this likely influenced China's decision to open China to participation in joint ventures and FDI in 1979 with American firms.

Gao also argued that Deng Xiaoping drove China's Open Door reforms in order to gain access to advanced Western science and technology. I fully agree that gaining access to advanced technology was one of the primary motivations for the Chinese reforms, but I argue that evidence suggests that Deng wanted to gain access specifically to American technology to support the modernization of China's agriculture, industry, national defense, and science and technology.

Historian Harry Harding noted that economic liberalization in Eastern Europe after 1976 influenced the Chinese reformers. He attributed the mutual interest by the Chinese and Eastern Europeans in reforms to a shared orientation toward loosening of controls in the Soviet economic model. Harding recognized the Chinese reformers' desire for increased importation of Western technology, but he did not acknowledge

---

Robert Kleinberg, *China's "Opening" to the Outside World: The Experiment with Foreign Capitalism* (Boulder, CO: Westview Press, 1990); Richard D. Robinson, ed., *Foreign Capital and Technology in China* (New York: Praeger, 1987); Haishun Sun, *Foreign Investment and Economic Development in China: 1979-1996* (Brookfield, VT: Ashgate, 1998). A brief but helpful background summary is provided in Phillip Donald Grub and Jian Hai Lin, *Foreign Direct Investment in China* (New York: Quorum Books, 1991).

<sup>9</sup> James Z. Gao, "Rediscovery of Western Science and Technology and Definition of Chinese Foreign Policy," *China Studies* 6 (2000): 29-48.

that the Eastern European economic liberalization experiments included the allowance of joint ventures and FDI with foreign firms.<sup>10</sup>

Political scientist Margaret Pearson argued that Chinese reformers considered the successful experiences with joint ventures of some of the Eastern European countries aligned with the Soviet Union, specifically Hungary, Romania, and Yugoslavia, as well as South Korea, Singapore, Hong Kong, and Taiwan, but she did not explore the highly visible role of American companies in those economies. She included Sun Yat-sen's and Lenin's perspectives on the use of foreign capital as part of the background rationale for the Chinese economic reforms, but she did not include China's awareness of contemporary, 1970s-era East Asian and Eastern European exposure to foreign capital and technology, particularly from the U.S.<sup>11</sup>

Similarly, political scientist Nina P. Halpern noted that several Chinese delegations visited Eastern Europe, particularly Yugoslavia and Romania, starting in January 1977 to study their economic policies and experiences. Press articles appeared in China beginning in 1977 that highlighted the beneficial impact of joint ventures on Hungary's economy, and similar articles appeared in 1978 and 1979 highlighting joint ventures and the use of foreign capital in Romania and Yugoslavia. Halpern noted that one of the five criteria that were highlighted as success factors in the economies of Romania, Yugoslavia, and Albania was "a policy of self-reliance combined with importing of advanced techniques from the West." She credited the Chinese exposure to these experiences as influences on China's reforms, arguing,

---

<sup>10</sup> Harry Harding, *China's Second Revolution: Reform After Mao* (Washington, D.C.: The Brookings Institution, 1987), 48.

<sup>11</sup> Pearson, *Joint Ventures in the People's Republic of China*, 53, 251 fn54.

“The examination of East European methods of interaction with the capitalist economies no doubt was an important source of ideas as China gradually expanded its own repertoire of such methods.”<sup>12</sup> Halpern’s work valuably confirmed that the Chinese reformers learned from the Eastern European experiences with joint ventures and foreign technology in the late 1970s as the Chinese economic reforms were developed and launched. However, she did not consider the experiences of these specific East European economies with American technology transfer, joint ventures, and direct investment.

Presidents Richard Nixon and Jimmy Carter and former Secretary of State Kissinger described in their memoirs the bitter and sometimes violent relationship between China and the Soviet Union in the 1970s and efforts at détente between the United States and the U.S.S.R.<sup>13</sup> Most valuably, Kissinger argued in his recent *On China* that China’s rapprochement with the United States in the early 1970s was driven by China’s desire to strengthen its security against the Soviet Union, not by trade considerations.<sup>14</sup> None of these works, however, investigated the possible influence that booming trade between the United States and the U.S.S.R., and in particular, efforts by American companies to establish joint ventures in Soviet Bloc countries for the transfer of technology, had on China’s 1979 reforms.

---

<sup>12</sup> Nina P. Halpern, “Learning from Abroad: Chinese Views of the East European Economic Experience, January 1977-June 1981,” *Modern China* 11, no. 1 (January 1985): 93-94.

<sup>13</sup> Richard Nixon, *The Memoirs of Richard Nixon* (New York: Grosset & Dunlap, 1978); Jimmy Carter, *Keeping Faith: Memoirs of a President* (New York: Bantam Books, 1982); Jimmy Carter, *White House Diary* (New York: Farrar, Straus and Giroux, 2010); Henry Kissinger, *White House Years* (New York: Simon & Schuster, 1979); Henry Kissinger, *Years of Renewal* (New York: Simon & Schuster, 1999); Henry Kissinger, *Years of Upheaval* (New York: Simon & Schuster, 1982).

<sup>14</sup> Henry Kissinger, *On China*, rev. ed. (New York: Penguin, 2012).

Strongly influenced by the humiliation imposed on China by foreign imperialists in the second half of the nineteenth century, Mao Zedong stressed the importance of Chinese self-reliance and he firmly resisted foreign influence in China. Mao launched the violent and chaotic Cultural Revolution in 1966 to stimulate “class struggle” and to persecute those who were taking the “capitalist road.” Many scholars have documented the extremely negative influence of the Chinese Cultural Revolution on economic and technological progress in China in general, and on economic reforms specifically. Deng Xiaoping, who eventually became the leader of China after Mao’s successor Hua Guofeng, considered reforms in 1975 that would facilitate faster acquisition of foreign technology in order to accelerate China’s modernization but political rivals aligned with the Cultural Revolution crushed his efforts, and he was temporarily exiled from power.<sup>15</sup> The Cultural Revolution ended only with Mao’s death in 1976.<sup>16</sup> Historian Ezra Vogel argued that the attainment of power by reformers Hua Guofeng and Deng Xiaoping after Mao’s death, and after the extreme Communist nationalists known as the “Gang of Four” were stripped of influence in 1977, explains why China’s economic reforms were launched in 1978 and 1979 and not earlier.<sup>17</sup> However, although a masterwork and comprehensive in its examination of Deng’s role in the economic reforms, Vogel’s book did not discuss

---

<sup>15</sup> Nicholas R. Lardy, *Foreign Trade and Economic Reform in China, 1978-1990* (New York: Cambridge University Press, 1992), 37; Joseph Fewsmith, *Dilemmas of Reform in China: Political Conflict and Economic Debate* (Armonk, NY: M.E. Sharpe, 1994), 59; Deng Xiaoping, *Selected Works of Deng Xiaoping (1975-1982)* (Beijing: Foreign Languages Press, 1984), 44.

<sup>16</sup> John K. Fairbank, “The People’s Republic,” in *East Asia: Tradition and Transformation*, ed. John K. Fairbank, Edwin O. Reischauer, and Albert M. Craig, rev. ed. (Boston: Houghton Mifflin, 1989), 967-971.

<sup>17</sup> Ezra F. Vogel, *Deng Xiaoping and the Transformation of China* (Cambridge, MA: Belknap Press, 2011).

the possible influence of the U.S. businesses that actively sought entry into China beginning in the early 1970s on Deng's decision to consider reforms in 1975 and his role in launching reforms targeted at encouraging joint ventures and other forms of FDI in 1979.

Scholars have noted the influence of the economic success of China's near neighbors—specifically, Japan, Singapore, Taiwan, South Korea, and Hong Kong—on China's decision to open to deeper economic and technical cooperation with foreign companies.<sup>18</sup> However, these scholars have not explored the possible influence on China's Open Door policy of the highly successful and visible technology transfer to these countries and city-states that resulted from American joint ventures and FDI.

Historian Barry Naughton acknowledged that China sought an alliance with the United States because of the Sino-Soviet conflict. He also acknowledged that China's reforms were influenced by the rapid growth of Taiwan, Hong Kong, and Singapore. He noted that Deng Xiaoping was aware that great technological changes had occurred while China was isolated and that China had fallen behind the developed world. Most importantly, he confirmed that China turned toward the U.S. in 1977-1978 just before the Chinese economic reforms were launched. However, Naughton did not explore the role that American technology transfer played in the strengthening of the Soviet Bloc and in the expansion of the economies of Taiwan, Hong Kong, and Singapore. Finally, Naughton did not suggest that China likely

---

<sup>18</sup> Yasheng Huang, *FDI in China: An Asian Perspective*; Margaret Pearson, *Joint Ventures in the People's Republic of China*.



launched its reforms in 1979 in large measure to attract American advanced technology to China, as I argue.<sup>19</sup>

I believe it is valuable to consider *why* China chose to institute reforms. *Why* did China choose to reform its economic policies? The disastrous 1958-1960 Great Leap Forward resulted in a vast, unprecedented famine in China and proved that China lacked adequate agricultural technology to feed its own population. It was not by random chance that the first major trade by China with the U.S. after President Richard Nixon's trip to China in February 1972 was the purchase of a large quantity of American grain. China's break with the Soviet Union and the subsequent antagonism between these two countries left China without its most utilized source of technology. Soviet technologists left China in 1960. China and the Soviet Union became bitter enemies, and the Soviet Union presented a serious military threat to China because of the U.S.S.R.'s superior military technology. The disastrous 1966-1976 Cultural Revolution then moved China backwards by decades in its domestic science and technology capability by purging (and killing some) top scientists and technologists and destroying the quality of China's technical and engineering schools. Very little domestic technological progress occurred during the Cultural Revolution between 1966 and 1976. Mao Zedong's death on September 9, 1976 presented an opportunity for new leadership to utilize a different approach to face China's urgent challenges of technological modernization, economic development, and geopolitical security. Reporting just one month later on October 15 on the appointment of Hua Guofeng as Mao's successor and the arrest of the radical leftist "Gang of Four"

---

<sup>19</sup> Barry Naughton, *Growing Out of the Plan: Chinese Economic Reform, 1978-1993* (New York: Cambridge University Press, 1995), 62-63.

leaders, *Business Asia* noted that some “China watchers” anticipated that China’s new direction would “be decidedly more conciliatory toward the West in general and the US in particular.”<sup>20</sup> China was left with more than two decades of lost productivity as it approached the end of the 1970s. On May 24, 1977, Deng Xiaoping spoke of the technological gap China faced, saying, “Now it appears that China is fully 20 years behind the developed countries in science, technology and education.”<sup>21</sup> China's weak economy left it lacking in global influence and made it potentially vulnerable to much stronger potential Western "imperialists." Its weak economy also made it potentially vulnerable to domestic unrest.

It is clear from study of the primary and secondary literature that China’s economic policy reforms were launched to facilitate its technological modernization. China implemented its economic reforms primarily in order to close its technology gap with the developed countries in the world. China urgently needed to access advanced technology from any of its trading partners in the late 1970s that could assist them with modernization in agriculture, industry, national defense, and science and technology, including the United States, Japan, France, West Germany, and other capitalist countries.

But evidence suggests that China’s leaders recognized that American technology was superior and they realized that China needed American technology in order to modernize its technological capabilities. Historian Nancy Bernkopf Tucker argued that even though China maintained trade relations with allies of the United

---

<sup>20</sup> *Business Asia*, “China’s Pragmatists Appoint Chairman, Crack Down on Radicals,” VIII, no. 42 (October 15, 1976): 329.

<sup>21</sup> Deng, *Selected Works of Deng Xiaoping (1975-1982)*, 53.

States after 1950 before relations were established with the U.S., in the late 1960s “the United States remained the most desirable potential commercial partner and the source of the most advanced technology.”<sup>22</sup> James Gao documented that scientists in China actively monitored the progress of Western science and technology in the early 1970s through access to publications.<sup>23</sup> The November 17, 1973, *New York Times* reported after the first U.S. trade delegation visit to China in 1973 that “the delegation took away a strong impression that the strongest interest of the Chinese was in areas of ‘high technology’ and quoted NCUSCT president Christopher H. Phillips as stating, “Implicitly they regard American technology as second to none in the world and they want to get into that market. There’s no doubt about it.”<sup>24</sup>

I argue that evidence suggests three factors tied to American actions in Asia likely influenced China’s reforms in 1979 that opened the country to joint ventures and other forms of foreign direct investment: the contributions of American joint ventures and other FDI to China’s economically successful neighbors in East Asia and the attractiveness to China’s reformers of enabling similar contributions in China; contributions of American joint ventures and other FDI to the Eastern European countries aligned with the Soviet Union, coupled with China’s competition with the Soviet Union for expanded economic relations with the United States; and

---

<sup>22</sup> Nancy Bernkopf Tucker, *China Confidential: American Diplomats and Sino-American Relations, 1945-1996* (New York: Columbia University Press, 2001), 220.

<sup>23</sup> Gao, “Rediscovery of Western Science and Technology and Definition of Chinese Foreign Policy,” 38.

<sup>24</sup> Gale Cengage Learning, Photocopy, *Administrative Files: Subject File, NCUSCT:- Historical Files (1)-(6)*, 1970 and 1972, Records of the National Council for United States-China Trade 1973-1983 Collection, Gerald R. Ford Presidential Library, *Archives Unbound* (afterwards, “NCUSCT”), [http://go.galegroup.com/gdsc/i.do?&id=GALE%7CSC5102058095&v=2.1&u=acd\\_gdsc&it=r&p=GDSC&sw=w&viewtype=fullcitation](http://go.galegroup.com/gdsc/i.do?&id=GALE%7CSC5102058095&v=2.1&u=acd_gdsc&it=r&p=GDSC&sw=w&viewtype=fullcitation) (accessed October 21, 2012).

interactions between American leaders and businesspeople and their Chinese counterparts. These three themes provide the structure of this thesis.

## Chapter 2: U.S. Activity in East Asia

American companies led the rest of the world in the 1970s in investments and technology transfer to Japan, Taiwan, Hong Kong, and Singapore, and were gaining on Japan's leadership position in South Korea. These Asian "Tigers" used predominantly American but also Japanese and some European technology and investments to establish rapidly growing, export-oriented, manufacturing-based economies. I argue that China needed and wanted to draw American companies into foreign investments and technology transfer in China in order to replicate this model. As I will repeat throughout this thesis, I argue that China's economic reforms in 1979 that opened China to joint ventures and other forms of foreign direct investment were made in order to attract all foreign suppliers of advanced technology to China, but were likely intended in particular to attract American technology to China.

The U.S. government played a very active role in the reconstruction of the economies of Japan after World War II, of Taiwan following the Chinese civil war, and of South Korea after both WWII and the Korean War. American advisors led the development of economic policy and the United States provided vast amounts of economic aid, especially to Taiwan and South Korea.<sup>25</sup> The U.S. provided military security for Japan through the American armed forces, which enabled Japan to spend only a very low percentage of its annual budgets from 1945 through the 1970s on its

---

<sup>25</sup> Jung-en Woo, *Race to the Swift: State and Finance in Korean Industrialization* (New York: Columbia University Press, 1991), 45-58.

internal “self-defense force.” The U.S. supplemented the armed forces of South Korea with a large resident contingent of American soldiers, similarly reducing the level of expenditure required by South Korea on its national military forces. Japan, South Korea, and Taiwan were strategically important regions of American influence near the People’s Republic of China and the Soviet Union during the geopolitical tensions of the Cold War. U.S. foreign policy sought to contain the spread of communism by maintaining the economic vitality of these three countries. As professor and specialist on Korean economic growth Stephen Haggard explained:

Japan’s defeat in the Second World War made the United States the pre-eminent power in the region. The outbreak of conflict on the Korean peninsula extended the Cold War to Asia, altering the United States’ strategic perception of the region and creating expanded political and economic commitments to the Republic of Korea and Taiwan. The growth of a regional economy in the Pacific Basin cannot be understood without reference to this underlying strategic context. As with the Marshall Plan in Europe, the extension of aid and the encouragement of regional economic interdependence served three interlocking purposes: economic reconstruction; buttressing the position of pro-American political elites; and cementing strategic relations with economic ties...import substitution in the fifties was financed largely by American aid. American advisors played a role in the shift toward export-led growth as well.<sup>26</sup>

While American aid itself did not drive the growth subsequently experienced by South Korea and Taiwan, it did contribute to economic stability and enable investments in infrastructure that proved to be important later. International economics professor James Riedel noted,

---

<sup>26</sup> Stephan Haggard, “The Politics of Industrialization in The Republic of Korea and Taiwan,” in *Achieving Industrialization in East Asia*, ed. Helen Hughes (New York: Cambridge University Press, 1988): 265.

Much attention has been given to the fact that two of the most successful East Asian countries, the Republic of Korea and Taiwan, received disproportionate amounts of foreign aid prior to rapid growth...The purpose of United States aid to Taiwan and the Republic of Korea was mainly to help absorb the burden of their confrontation with neighboring communist states. It did, none the less, allow investment, mainly in infrastructure, that would not otherwise have been possible given their extraordinary defense obligations...The main contribution of aid in Taiwan and the Republic of Korea seems to have been political and economic stability rather than growth *per se*.<sup>27</sup>

American aid to South Korea, Taiwan, and Japan did not influence China's Open Door reforms. But active American government and private company involvement in the rebuilding of the economies of these countries following their wartime devastation laid a foundation that later supported export orientation and supported the interests of American companies in industrialization and technology cooperation in these countries. I argue that the subsequent technology transfer by American companies to these East Asian countries did, in fact, influence China's Open Door reforms.

Even though the U.S. prohibited trade with China during the 1950s and 1960s, U.S. companies established strategic business relationships and traded in East Asian countries near China. American companies developed joint ventures for trade and technology transfer and made investments in firms in Japan, Taiwan, South Korea, Singapore, and Hong Kong, particularly in the 1960s and 1970s.<sup>28</sup>

---

<sup>27</sup> James Riedel, "Economic Development in East Asia: Doing What Comes Naturally?" in *Achieving Industrialization in East Asia*, ed. Helen Hughes (New York: Cambridge University Press, 1988), 24-25.

<sup>28</sup> Carroll Kilpatrick, "U.S. Ends Ban on China Trade; Items Are Listed," *New York Times*, June 11, 1971; *New York Times*, July 20, 1976; "Japan Pulls Back on Fiber Investments," *International, Chemical Week*, August 18, 1976; "Success in the Drug Business Runs in the Family," *People, Chemical Week*, October 6, 1976, 46; "South Korea Battles Fertilizer Glut," *International, Chemical Week*, April 13, 1977, 26.

Even though China and the United States restricted travel between the two countries and didn't maintain diplomatic relations, China's leaders were kept well informed about U.S. activities in the world. President Gerald Ford noted in his memoirs that during his visit to China in June 1972, Premier Zhou Enlai spoke about "efforts to solve the pollution problem in New Orleans; he knew the dates of the forthcoming Republican and Democratic conventions and he even suggested to us that we go back and read a speech that Nixon had given in Kansas City a year before."<sup>29</sup> The Xinhua News Agency prepared an information journal containing foreign news reports and other information for Chinese leaders that was published several times a day.<sup>30</sup> In an important article in *Foreign Affairs* in 1967, which was an important early signal to the Chinese that he was prepared to begin steps toward rapprochement, President Richard Nixon noted that superior "Western technology and Western organization" were contributing to the modernization of East Asia, and he highlighted the strong economic growth achieved by Japan, Hong Kong, Taiwan, Thailand, Korea, Singapore and Malaysia.<sup>31</sup> Professor Chen Jian reported that Mao read this article when it was included in the daily summary of news compiled by the Xinhua News Agency.<sup>32</sup>

The Xinhua News Agency maintained an important Hong Kong branch. According to Professor Cindy Yik-yi Chu, the Hong Kong branch of the Xinhua

---

<sup>29</sup> Gerald R. Ford, *A Time to Heal: The Autobiography of Gerald R. Ford* (New York: Harper & Row, 1979), 97-98. See also Nixon, *The Memoirs of Richard Nixon*, 554.

<sup>30</sup> Chen Jian, *Mao's China and the Cold War* (Chapel Hill, NC: University of North Carolina Press, 2001), 362, fn25.

<sup>31</sup> Richard M. Nixon, "Asia after Viet Nam," *Foreign Affairs* 46, no. 1 (October 1967): 118.

<sup>32</sup> Jian, *Mao's China and the Cold War*, 245.

News Agency, or HK Xinhua, operated both as a newsgathering and dissemination institution and as a cover for the Chinese Communist Party's covert political activities in Hong Kong. According to Chu, HK Xinhua served as "China's representative in the colony," and some observers asserted that HK Xinhua reported directly to the PRC State Council's Foreign Affairs Office. Chu argued that HK Xinhua grew in size and influence during the 1960s "when Hong Kong's importance as a base from which China could conduct indirect diplomatic activities with foreign consulates became clear."<sup>33</sup> HK Xinhua was well positioned to watch and report on the direct investment and technology transfer activities of American firms in the East Asian region.

My research regarding the participation of American advanced technology companies in joint ventures, technology transfer, and direct investments in these East Asian countries draws heavily from the *Business Asia* trade journal, which was a weekly publication targeted at "managers of Asia/Pacific operations." Business International Asia/Pacific Ltd.'s regional headquarters was in Hong Kong, and the company published *Business Asia* in Hong Kong.<sup>34</sup> Given the deep awareness that Chinese leaders demonstrated of world news and global events, and given the important role that Hong Kong served as a portal for information about the West to China, I argue that it is highly likely that Chinese leaders and planners monitored *Business Asia* as a source of information. I assert that the data and news that I pulled from this publication and include herein were quite likely read by China's influential

---

<sup>33</sup> Cindy Yik-Yi Chu, *Chinese Communists and Hong Kong Capitalists* (New York: Palgrave Macmillan, 2010), 46-51.

<sup>34</sup> *Business Asia*, "Business Asia: Its Meaning to Your Company," 1, no. 1 (October 30, 1970): 3.



decision-makers directly, contemporaneously, from this publication during the critical decade of the 1970s leading up to the Chinese economic reforms in 1978 and 1979.

### **Japan**

American assistance, trade, and technology enabled Japan to rise from its destruction during World War II to become one of the strongest economies in the world. The U.S. occupied Japan from the end of World War II in 1945 until 1952 and was deeply involved in its political and economic recovery from the destruction caused by the war.

The United States enforced a policy of punishment toward Japan during the first two years of the Occupation. Direct economic aid from the U.S. was relatively low between 1945 and 1947, totaling just \$108 million USD between 1945 and 1946 and \$294 million between 1946 and 1947.<sup>35</sup> But as global tensions increased between the United States and the Soviet Union at the outset of the Cold War, George Kennan's National Security Council memorandum NSC 13/2 redirected U.S. policy toward Japan. Kennan's policy memorandum, which President Truman signed in late 1948, encouraged the revitalization of Japan's industrial capabilities with American assistance. As Professor Richard Samuels noted, "The Occupation calculated that an economically viable and grateful Japan was more likely than an impoverished one to support the larger objectives of U.S. foreign policy."<sup>36</sup> Detroit banker Joseph Dodge arrived in Japan in December 1948 to lead efforts to stabilize Japan's economy. The

---

<sup>35</sup> George Friedman and Meredith Lebard, *The Coming War With Japan* (New York: St. Martin's Press, 1991), 107.

<sup>36</sup> Richard J. Samuels, *"Rich Nation, Strong Army": National Security and the Technological Transformation of Japan* (Ithaca, NY: Cornell University Press, 1994), 132-133.

legacy of the “Dodge Line” included an intense focus on exports, the creation of the powerful Ministry of International Trade and Industry (MITI) and the strengthening of the Ministry of Finance. According to Leon Hollerman, an economist who served in Japan during the American Occupation, the Occupation authorities presided “over the institutionalization of the most restrictive foreign trade and foreign exchange control system ever devised by a major free nation.”<sup>37</sup> Decades later, after its Open Door reforms, China’s foreign trade and foreign exchange control system was similarly highly restrictive, perhaps drawing from the Japanese bureaucratic model developed during the American Occupation.

Japan’s economy turned the corner toward growth when the U.S. directed Japan’s idle post-war industrial capacity toward the provision of war supplies after the outbreak of the Korean War.<sup>38</sup> According to Korean scholar Jung-en Woo, “The Korean War was a deus ex machine for Japan’s economic take-off. As Chalmers Johnson notes, it was the equivalent for Japan of the Marshall Plan, the United States having spent close to \$3 billion in Japan for war and war-related supplies between June 1950 and 1954: ‘a gift of the gods,’ according to [Japanese prime minister] Yoshida Shigeru.”<sup>39</sup>

After the U.S. occupation of Japan ended in 1952, American firms continued to assist Japan’s economic development. Historian Kenneth B. Pyle argued, “In order to strengthen its allies in the Cold War, the United States was willing to subordinate

---

<sup>37</sup> John W. Dower, *Embracing Defeat: Japan in the Wake of World War II* (New York: W.W. Norton & Company, 1999), 540-546.

<sup>38</sup> Gary D. Allinson, *Japan’s Postwar History*, 2<sup>nd</sup> ed. (Ithaca, NY: Cornell University Press, 2004), 78-79; Samuels, “*Rich Nation, Strong Army*,” 132-153.

<sup>39</sup> Woo, *Race to the Swift*, 55.

its short-term economic interests. It thus provided U.S. markets, technology, and aid to them, singling out Japan for special treatment.”<sup>40</sup>

American firms began manufacturing products in Japan in the 1950s, even though foreign direct investment was not encouraged at that time. National Cash Register (NCR) was one of the first American companies to establish a foreign manufacturing operation in Japan. NCR started manufacturing in Japan in 1957.<sup>41</sup> Other American companies that set up operations in Japan in the 1950s included IBM, Esso (Exxon), and Mobil.<sup>42</sup> Japan obtained technology licenses from American companies during the 1950s, including a license from Du Pont for making polyethylene and one from Sohio for making acrylonitrile.<sup>43</sup>

To jointly develop markets and to share technology, American companies began entering into joint ventures with Japanese companies in the 1960s as restrictions regarding FDI were gradually liberalized.<sup>44</sup> *Business Asia* reported the results of a survey performed by the Japanese Ministry of International Trade and Industry (MITI) in 1976 that explored why foreign and Japanese firms chose to participate in joint ventures in Japan. The survey results revealed that foreign

---

<sup>40</sup> Kenneth B. Pyle, *Japan Rising: The Resurgence of Japanese Power and Purpose* (New York: Century Foundation, 2007), 249.

<sup>41</sup> *Business Asia*, “How NCR is Organized For Asia/Pacific Operations,” III, no. 15 (April 14, 1972): 119.

<sup>42</sup> Akira Goto and Hiroyuki Odagiri, “Building technological capabilities with or without inward direct investment: the case of Japan,” in *Competitiveness, FDI and Technological Activity in East Asia*, ed. Sanjaya Lall and Shujiro Urata (Northampton, MA: Edward Elgar: 2003), 88.

<sup>43</sup> Davis Dyer and David B. Sicilia, *Labors of a Modern Hercules: Evolution of a Chemical Company* (Boston: Harvard Business School Press, 1990), 348.

<sup>44</sup> The author served as representative director of a joint venture in Japan that was created in 1968 between Maryland-based Airpax Corporation and Tokyo-based Sanken Electric Company; “Toray Industries’ Hiroshi Imanishi: Fortune Favors His Hobbies, Business,” *People, Chemical Week*, March 26, 1975, 52.

partners generally wanted to gain access to the rapidly growing Japanese market through joint ventures. But the survey showed that gaining access to the foreign partner's superior technology was the most important Japanese motivation for entering into joint ventures:

Some 61% of respondents indicated that the foreign investor enabled them to advance into new fields through the introduction of technology, and 47% gave this as the major reason. Also, 34% mentioned (and 14% gave it as a main reason) that the introduction of foreign technology enabled them to raise their technical level—i.e. the joint venture decision was prompted because of the resulting access to better technology.<sup>45</sup>

American advanced technology companies entered into joint ventures in Japan during the 1960s and the 1970s. For example, Cummins entered into a license agreement and established a joint venture with Komatsu Manufacturing Co., Ltd. in 1961.<sup>46</sup> Delaware-based Hercules established a joint venture with Teijin in 1963 to manufacture dimethyl terephthalate, an important component in the manufacturing process for polyester fiber.<sup>47</sup> A listing of twenty-one joint ventures in the March 31, 1972 issue of *Business Asia* that were approved under a new Japanese approval methodology included twelve companies (57 percent) that were affiliated with American partners.<sup>48</sup> By the end of the 1970s, the well-known American participants in advanced technology joint ventures in Japan included Burroughs Corporation,

---

<sup>45</sup> *Business Asia*, "MITI Survey Shows Why Foreign Companies Invest in Japan," VII, no. 14 (April 2, 1976): 110-111.

<sup>46</sup> Jeffrey L. Cruikshank and David B. Sicilia, *The Engine That Could: 75 Years of Values-Driven Change at Cummins Engine Company* (Boston: Harvard Business School Press, 1997), 380; Schnepf, Von Glinow, and Bhambri, *United States-China Technology Transfer*, 133.

<sup>47</sup> Dyer and Sicilia, *Labors of a Modern Hercules*, 348.

<sup>48</sup> *Business Asia*, "Foreign Investments Under Japan's Automatic Approval Scheme," III, no. 13 (March 31, 1972): 100.

Celanese, Cummins, Dow Chemical, E.I. Du Pont de Nemours and Co., Eli Lilly and Co., General Electric Co., General Instrument Corporation, Ingersoll-Rand, Lithium Corp., Mercury Marine International Co., Monsanto Co., National Machinery, Pennwalt, Pfizer Corp., Sperry Univac, The Singer Co., and UMC Industries, Inc.<sup>49</sup> Joint ventures were established by General Motors with Isuzu, by Ford with Toyo Kogyo, and by Chrysler with Mitsubishi Motors.<sup>50</sup> Other less well-known American companies also participated in joint ventures in Japan.

Influenced by pressure from the U.S., Japan announced in 1973 a relaxation in its restrictions on the percentage of equity ownership that American and other foreign investors were allowed to hold in investments in Japan, allowing 100 percent equity ownership in more types of ventures than previously allowed.<sup>51</sup> *Business Asia* provided a listing of “Some Recent Foreign Investments in Japan” in its May 10, 1974 issue, and nineteen of the thirty ventures listed (63 percent) were affiliated with American parents. These nineteen ventures included such advanced technology sectors as computers, automobiles and automobile parts, tractors, engine parts, marine generators, surface treatment materials and machinery, hydraulic pumps and motors,

---

<sup>49</sup> *Business Asia*, “The Business Outlook: Japan,” III, no. 8 (February 25, 1972): 62; *Business Asia*, “Why Japan Will Resist Computer Liberalization Demands In Upcoming Economic Talks With the US,” III, no. 29 (July 21, 1972): 226; *Business Asia*, “Some Recent Foreign Investments in Japan,” V, no. 19 (May 10, 1974): 149; *Business Asia*, “Recession-Struck Japan: Where Firms Invest Points to Opportunities,” X, no. 9 (March 3, 1978): 67; *Business Asia*, “Fundamental Changes Spell New Opportunities To Sell to Japan,” XI, no. 18 (May 4, 1979): 138; *Business Asia*, “Japan’s Automatic Approvals: BA Surveys Firms’ Experience,” III, no. 13 (March 31, 1972): 101.

<sup>50</sup> *Business Asia*, “Peking Caught Flirting With Unattached Toyota,” II, no. 31 (July 30, 1971): 245.

<sup>51</sup> *Business Asia*, “Japan Opens Its Doors to Foreign Investors: Most Restraints End Next Week, Others By 1976,” IV, no. 17 (April 27, 1973): 129-130.

pneumatic control valves, and office equipment. American parents wholly owned six of these ventures.<sup>52</sup>

The U.S. led the world in investments in Japan. Although the percentage of the total number of foreign investments in Japan that were made by American investors dropped from 50 percent in 1972 to 45 percent in 1973, *Business Asia* stated that American companies had “always been the biggest group of investors” in Japan.<sup>53</sup> Looking ahead at the end of 1977, *Business Asia* observed that “Japan attracts ever-increasing investment by US companies” and it forecast a 21 percent spending increase by American manufacturers during the following year.<sup>54</sup>

Leading Japanese advanced technology companies were also linked to American firms through technology assistance agreements. The Japanese firm Nippon Electric Co. (NEC) received technical assistance from Honeywell. Toshiba received technical assistance from General Electric and was also affiliated through the Japanese firm Mitsui to Sperry Rand’s Univac division through a joint venture.<sup>55</sup>

The U.S. also led the world in licensing technology to Japan. As shown in the attached chart, 61.9 percent of all technology licenses in Japan were from American sources in 1962. Though that percentage dropped to 52.7 percent in 1972, the U.S.

---

<sup>52</sup> *Business Asia*, “Some Recent Foreign Investments in Japan,” V, no. 19 (May 10, 1974): 149.

<sup>53</sup> *Business Asia*, “No Rush to Invest in Japan Despite Easing of Rules,” V, no. 19 (May 10, 1974): 148-149.

<sup>54</sup> *Business Asia*, “Duller Year Ahead Based on Spending Plans Of US Subsidiaries,” IX, no. 49 (December 9, 1977): 388.

<sup>55</sup> *Business Asia*, “Why Japan Will Resist Computer Liberalization Demands In Upcoming Economic Talks With the US,” III, no. 29 (July 21, 1972): 226.

still held a greater than four-to-one advantage over the second leading supplier, West Germany.<sup>56</sup>

#### Licensors of Technology to Japan 1962-1972

	1962	1967	1972
U.S.	203	388	1,010
West Germany	46	69	228
U.K.	12	57	154
France	8	29	150
Switzerland	25	37	116
Italy	5	11	50
Sweden	6	2	43
Netherlands	13	8	33
Canada	2	10	24
Austria	0	2	18
Denmark	0	2	15
Belgium	3	3	14
Panama	3	11	9
Australia	0	0	9
Norway	0	1	8
Others	2	8	35
<b>Total</b>	<b>328</b>	<b>638</b>	<b>1,916</b>

(From *Business Asia*, "Selling Technology to Japan: What Industries Buy From Whom," V, no. 10 (March 8, 1974): 75)

In addition to being the leader in the total number of licenses sold to Japan, the U.S. also led in every industrial sector except one (textiles):

Japan's 1972 Technology Purchases by Industry and Origin

	U.S.	W. Germany	U.K.	France	Switzerland	Italy	Sweden	Netherlands	Canada	Austria	Others	Total
Chemicals	110	25	23	11	15	2	2	4	1	0	9	202
Petrochemicals	6	2	2	0	0	0	0	1	0	0	0	11
Petroleum and Coal	26	1	8	5	0	0	0	0	1	0	11	52
Metals	25	6	4	3	5	0	1	0	0	0	3	50
Metal Products	23	10	2	4	5	0	2	1	0	0	3	50
Machinery	214	100	36	20	25	5	19	10	6	6	19	460
Transportation	43	10	15	8	3	0	5	1	0	2	3	90
Precision apparatus	38	11	2	4	13	0	1	0	1	0	2	72
Electrical	247	21	12	7	8	6	2	5	8	1	3	320
Foodstuffs and tobacco	64	1	3	0	3	0	0	2	1	2	4	80
Textiles	38	7	19	59	9	24	1	0	1	2	11	171
Ceramics, glass, cement	14	4	3	6	1	1	2	2	2	0	3	38
Plastic products	53	8	8	6	11	1	3	1	1	1	2	95
Other products	92	19	13	16	16	10	5	4	1	3	15	194
Construction	17	3	4	1	2	1	0	2	0	0	1	31
<b>Total</b>	<b>1,010</b>	<b>228</b>	<b>154</b>	<b>150</b>	<b>116</b>	<b>50</b>	<b>43</b>	<b>33</b>	<b>24</b>	<b>18</b>	<b>90</b>	<b>1,916</b>

<sup>56</sup> *Business Asia*, "Selling Technology to Japan: What Industries Buy From Whom," V, no. 10 (March 8, 1974): 74-75.

(From *Business Asia*, "Selling Technology to Japan: What Industries Buy From Whom," V, no. 10 (March 8, 1974): 75)

Examples of technology that American firms licensed to Japanese firms in 1973 and 1974 included offshore oil-prospecting equipment, assembly equipment, incinerators, aluminum can-making equipment, dust-collection equipment, fire proofing materials, magnetic punching dies, and plastic sheets.<sup>57</sup> As shown in the following chart, the U.S. supplied most of the technological know-how to Japanese firms in 1974 and 1975:

#### **Technology Contracts With Japan**

<b>Origin of Know-How 1974-1975</b>		
<b>(Number of Contracts)</b>		
<b>Country</b>	<b>Short-Term</b>	<b>Long-Term</b>
U.S.	306	763
West Germany	40	196
France	51	160
U.K.	31	140
Italy	31	43
Switzerland	14	71
Canada	8	22
Denmark	8	23
Sweden	5	27
Netherlands	n.a.	34
Finland	3	n.a.

(From *Business Asia*, "Technology Purchases By Japan Decrease For First Time in Years," VI, no. 50 (December 12, 1975): 400)

Short-term technology transfer contracts covered either one-time transfers of knowhow or contractual terms of less than one year, while long-term contracts extended beyond one year. Reporting in December 1975, *Business Asia* stated that

---

<sup>57</sup> *Business Asia*, "Some 1973 Licensing Deals With Japanese Firms," V, no. 9 (March 1, 1974): 66; *Business Asia*, "More 1973 Licensing Deals," V, no. 10 (March 8, 1974): 76.



the U.S. “is particularly dominant in electronics and communications parts and electronic machinery, while Germany is mainly a source for machinery and chemical technology.”<sup>58</sup>

American firms were more active in investments in Japan than in any other country or region in the world. According to the *Business Asia* trade journal, U.S. Department of Commerce data showed that American direct investment in Japan grew 140.5 percent over the period 1966-1971, which was greater growth than American investment in any other global region. The second highest rate of growth of American direct investment for this five-year period was in Australia at 92.6 percent.<sup>59</sup> The rate of growth of American direct investment in Japan increased to 155.4 percent for the five-year period 1967-1972, which was again greater growth than American investment in any other global region. This rate of growth significantly exceeded the second highest rate of growth during the same time period (Africa, 80.9 percent growth), reflecting the very high and continuing level of interest that Japan generated in American firms starting in the late 1960s.<sup>60</sup> American direct investments in Japan increased further during the 1970s, and the pattern of the investments showed an emphasis on manufacturing in general and the manufacturing of machinery in particular:

---

<sup>58</sup> *Business Asia*, “Technology Purchases By Japan Decrease For First Time in Years,” VI, no. 50 (December 12, 1975): 400.

<sup>59</sup> *Business Asia*, “Latest US Direct Investment Data Confirm Asia/Pacific’s Fastest Growth, Highest Profitability,” IV, no. 48 (January 19, 1973): 17-18.

<sup>60</sup> *Business Asia*, “Asia/Pacific Continues With World’s Highest Profits, Fastest Investment Growth,” IV, no. 48 (November 30, 1973): 377-378.

**U.S. Direct Foreign Investment in Japan (US\$ million)**

	1975 (i)	1976 (ii)	1977 (iii)	1978 (iii)
<b>Total manufacturing:</b>	<b>37</b>	<b>134</b>	<b>212</b>	<b>414</b>
Food products	3	17	15	9
Chemicals, allied	33	14	32	84
Primary, fabricated metals	-3	-2	-5	-3
Machinery	12	75	137	270
Transport equipment	-4	25	309	0
Other manufacturing	-3	5	21	0
Petroleum	-54	254	22	57
Mining, smelting	0	0	0	0
Trade	29	57	55	192
Finance, insurance	27	28	46	82
Utilities, transport	6	-5	5	5
Other sectors	-25	-9	7	69
<b>Total All Sectors</b>	<b>20</b>	<b>458</b>	<b>346</b>	<b>820</b>

(From: (i) *Business Asia*, "US Investment in Asia Shows Shifting Patterns And Manufacturing Surge", IX, no. 43 (October 28, 1977): 340; (ii) *Business Asia*, "US Investment in Asia Shows Shifting Patterns And Overall Decline," X, no. 46 (November 17, 1978): 366; (iii) *Business Asia*, "Important Reversal In US Investment In Asia/Pacific Region," XI, no. 51 (December 21, 1979): 404)

In conclusion, Japan's post-war economy, including its export-oriented, manufacturing-based consumer electronics industry, was built on a foundation of American technology. According to political scientist Richard J. Samuels:

American firms have been the principal source of both military and commercial technology for Japan...American military transfers to Japan were dwarfed by the transfer of US commercial technology through the private sale of licenses and joint ventures...Between 1951 and 1984, according to one compilation, more than forty thousand separate contracts were signed by Japanese firms to acquire foreign technology...With nylon from DuPont, nuclear power from General Electric and Westinghouse, the transistor from Bell Laboratories, and the television tube from Corning, US technology licenses were "the technological basis for nearly all of Japan's modern industries."<sup>61</sup>

---

<sup>61</sup> Richard J. Samuels, "Reinventing Security: Japan Since Meiji," *Daedalus* 120, no. 4, Searching for Security in a Global Economy (Fall, 1991): 53, 54.

## **South Korea**

The U.S. was also deeply involved in the economic reconstruction of South Korea during its occupation of the country between 1945 and 1949 following the end of World War II. Quoting from a British Foreign Office document, historian Bruce Cumings described the role the U.S. played in the Korean economy and its consciousness in 1950:

American influence in the South had reached new heights by 1950. The British minister Vyvyan Holt eloquently captured this a few weeks before the war broke out: ...American influence 'penetrates into every branch of administration and is fortified by an immense outpouring of money.' Americans kept the government, the army, the economy, the railroads, the airports, the mines, and the factories going, supplying money, electricity, expertise, and psychological succor. American gasoline fueled every motor vehicle in the country. American cultural influence was 'exceedingly strong,' ranging from scholarships to study in the United States, to several strong missionary denominations, to 'a score of traveling cinemas' and theaters that played mostly American films, to the Voice of America, to big-league baseball: 'American [sic] is the dream-land' to thousands if not millions of Koreans.<sup>62</sup>

Cumings noted that South Korea was receiving more than \$100 million a year in aid from the U.S. in 1950, and both the U.S. Economic Cooperation Administration aid mission and the U.S. Korean Military Advisory Group in Korea at this time were the largest contingents of their types in the world.<sup>63</sup>

South Korea was economically devastated again after the Korean War ended in 1953. And again, the U.S. assisted South Korea in its economic recovery. Professor of international economics James Riedel noted, "Indeed, in 1961, after

---

<sup>62</sup> Bruce Cumings, *Korea's Place in the Sun: A Modern History* (New York: W. W. Norton, 1997), 255.

<sup>63</sup> Cumings, *Korea's Place in the Sun*, 255.

more than US\$2 billion of economic assistance and US\$1 billion of military assistance, it is reported that ‘USAID officials were wondering audibly whether South Korea was to remain indefinitely a pensioner of the United States.’”<sup>64</sup> According to scholar Jung-en Woo, “From 1946 to 1976, the United States provided \$12.6 billion in American economic and military aid to Korea,” including “\$6 billion in U.S. *economic* grants and loans.”<sup>65</sup> Woo pointed out, “The total cost to the United States of supporting Korea was really more like \$1 billion a year: in 1956, for instance, economic aid was more than \$326 million, military aid more than \$400 million, and \$300 million covered the costs for U.S. troops in Korea.”<sup>66</sup>

Eager to stimulate economic growth, South Korea turned its focus to manufacturing exports for the international market in the 1960s.<sup>67</sup> Favorable government policies stimulated growth in the level of foreign investments and South Korea became a manufacturing location for advanced technology products based on foreign technology.<sup>68</sup> A report in 1971 in the *Business Asia* trade journal stated, “new foreign investment amounted to a record \$86 million” in 1970, which was “double the previous record of \$43 million in 1969.” The journal went on to point out that “the

---

<sup>64</sup> James Riedel, “Economic Development in East Asia,” 24.

<sup>65</sup> Jung-en Woo, *Race to the Swift*, 45.

<sup>66</sup> Jung-en Woo, *Race to the Swift*, 46.

<sup>67</sup> Albert M. Craig, “The Rim Nations of East Asia: Vietnam, Taiwan, Korea, Hong Kong, and Singapore,” In *East Asia: Tradition and Transformation*, ed. John K. Fairbank, Edwin O. Reischauer, and Albert M. Craig, rev. ed. (Boston: Houghton Mifflin, 1989), 921; Taeho Bark and Hwy-Chang Moon, “The Role of Inward FDI: A Case Study of Foreign Firms in the Republic of Korea,” in *Multinationals and Economic Growth in East Asia: Foreign direct investment, corporate strategies, and national economic development*, ed. Shujiro Urata, Chia Siow Yue, and Fukunari Kimura (New York: Routledge, 2006), 161; *Business Asia*, “Where Investor Money Goes to in Korea,” II, no. 7 (February 12, 1971): 53-54.

<sup>68</sup> *Business Asia*, “Manufacturing Grows In South Korea’s Masan Free Export Zone,” VI, no. 28 (July 11, 1975): 221.

great increase in capital inflow in 1970 was due to the rapid expansion of US and Japanese investment, particularly in the electronics industry.”<sup>69</sup>

The U.S. led in investments in South Korea in 1970. American companies contributed 39 percent of the total in twenty-six ventures, while Japanese firms followed with 36 percent of the total in eighty-six ventures.<sup>70</sup> *Business Asia* reported in 1973 that the U.S. was still the largest foreign investor in South Korea, and Japan was the second largest. The cumulative investment (not including economic aid) from 1962 through 1972 in South Korea from the U.S. was \$180 million, while Japan invested \$149 million over the same ten-year period. Considered together, the U.S. and Japan dominated foreign equity investments in South Korea. These investments by the U.S. and Japan represented 91 percent of the total cumulative foreign equity investment made in South Korea during this ten-year period.<sup>71</sup> Japan surged ahead of the U.S. in direct investments in South Korea during the 1970s. Japan invested almost four times the investment level of the U.S. in Hong Kong in 1978, and the U.S. trailed in third place behind West Germany. For the period 1962-1978, Japan led by a wide margin with investments of USD \$550.5 million, which was more than three times the \$172.3 million level of the U.S. for this period.<sup>72</sup>

The Korean government encouraged joint ventures between foreign companies and domestic firms instead of fully owned foreign subsidiaries, and most

---

<sup>69</sup> *Business Asia*, “Where Investor Money Goes to in Korea,” II, no. 7 (February 12, 1971): 53-54.

<sup>70</sup> *Business Asia*, “Where Investor Money Goes to in Korea,” II, no. 7 (February 12, 1971): 54.

<sup>71</sup> *Business Asia*, “The Business Outlook: Korea,” IV, no. 4 (January 26, 1973): 30.

<sup>72</sup> *Business Asia*, “Korean Opportunities Part II: Prospects for Direct Investment,” XI, no. 6 (February 9, 1979): 47-48.

joint ventures were established with the foreign partner holding less than 50 percent share in order to protect domestic manufacturers. American advanced technology firms entered into joint ventures with South Korean partners during the 1960s and 1970s, including Ford, Borg Warner, and General Motors in the automotive sector, and Dow Chemical, Union Carbide, and Mobil Oil in the petroleum and petrochemical sector.<sup>73</sup> Many American companies received Korean government approval to own 50 percent in the joint ventures in which they participated, and American companies provided very important contributions to South Korea's infrastructure and economy. A fifty-fifty joint venture with Gulf Oil established South Korea's first oil refinery, Korea Oil Corporation in 1963-1964.<sup>74</sup> Honam Oil Refinery, a fifty-fifty joint venture between Caltex of the U.S. and Lucky Ltd. of South Korea created in 1967, was South Korea's second largest corporation in 1974. Korea Continental Carbon, a joint venture created in 1968 between Lucky Ltd. and Continental Carbon of the U.S., was the sole domestic supplier of the critical industrial material "carbon black" in 1977.<sup>75</sup> A fifty-fifty joint venture established in 1969 between Dow Chemical and the Korean government was still the only

---

<sup>73</sup> *Business Asia*, "Korea Plans Automobile Industry: Major World Firms Lured by Prospects," II, no. 4 (January 22, 1971): 25; *Business Asia*, "General Motors South Korean Move Underlines Asia/Pacific Growth Prospects," III, no. 16 (April 21, 1972): 121-122; *Business Asia*, "Caltex Contract Change Shows Korean Government Pragmatism," V, no. 37 (September 13, 1974): 294; *Business Asia*, "Union Carbide in Large 50:50 Joint Venture in Korea," VI, no. 9 (February 28, 1975): 71; *Business Asia*, "South Korea Feels the Pinch: Major Projects Are Postponed," VI, no. 15 (April 11, 1975): 117; *Business Asia*, "Korean Companies: Threat and Opportunity-Part II," IX, no. 13 (April 1, 1977): 103.

<sup>74</sup> *Business Asia*, "How Korea's Ulsan Industrial Area Stacks Up For Investors," VI, no. 21, (May 23, 1975): 163.

<sup>75</sup> *Business Asia*, "Major Korean Companies As Partners/Competitors For MNCs-Part III," IX, no. 14 ("April 8, 1977): 110.

manufacturer in Korea of vinyl chloride monomer and polyethylene in 1975.<sup>76</sup> A fifty-fifty joint venture established in 1969 between Union Oil of the U.S. and Korea Explosives Company built a power plant and an oil refinery, and that power plant provided “about one third of the electricity consumed in the Seoul-Inchon area.” The oil refinery provided “about 15% of the country’s total refining capacity” in 1977.<sup>77</sup> A joint venture between Samsung Electronics and Corning Glass Works of the U.S. provided screens for televisions, which was an important segment for South Korean exports.<sup>78</sup> A joint venture between Agrico Chemical Corporation of the U.S. and the Korea General Chemical Corporation to manufacture fertilizer was anticipated to be the “biggest chemical fertilizer plant in Asia” in the March 21, 1975 issue of *Business Asia*.<sup>79</sup>

*Business Asia* announced in its April 9, 1976, issue that Amoco Chemical would be launching a new joint venture in the petrochemicals sector, and Magnavox Government and Industrial Electronics Co. and E-Systems, Inc. would be launching new joint ventures in the electronics sector.<sup>80</sup> A new joint venture between Samsung Petrochemical, Amoco of the U.S., and Mitsui of Japan in the chemicals sector was

---

<sup>76</sup> *Business Asia*, “South Korea Approves New Huge Dow Investment Plans,” VI, no. 7 (February 14, 1975): 53, 56.

<sup>77</sup> *Business Asia*, “Korean Companies: Threat and Opportunity-Part II,” IX, no. 13 (April 1, 1977): 103.

<sup>78</sup> *Business Asia*, “Major Korean Companies As Partners/Competitors For MNCs-Part III,” IX, no. 14 (April 8, 1977): 111.

<sup>79</sup> *Business Asia*, “Giant Korean Fertilizer Project Involves Vast Fund Sourcing,” VI, no. 12 (March 21, 1975): 89-90.

<sup>80</sup> *Business Asia*, “New Korean Projects,” VIII, no. 15 (April 9, 1976): 116. Note: The weekly publications of *Business Asia* for January 2, 1976 (no. 1) through February 27, 1976 (no. 9) were published as Volume VII; the weekly issues from March 5, 1976 (no. 10) through December 31, 1976 (no. 53) were published as Volume VIII.

announced in 1977, as was one between Carnation of the U.S. and Samyang Steel Plate Manufacturing.<sup>81</sup>

In addition, several leading U.S. firms were successful in establishing fully owned subsidiary operations instead of or in addition to joint ventures in South Korea during the 1960s and 1970s, including Fairchild, Dow Chemical, Control Data, Motorola, Signetics, and IBM.<sup>82</sup> U.S. advanced technology companies Sperry Rand and Fairchild Semiconductors also made investments in South Korea, though it isn't clear whether these were investments in joint ventures or fully owned subsidiaries.<sup>83</sup>

South Korea also pursued foreign technology through technical assistance agreements, especially with Japan. The U.S. led in the period 1962-1966 in the number of technical assistance agreements signed with South Korea with 48 percent of the total. Japan emerged as the leading partner in technical assistance agreements beginning in 1967 with the U.S. following in second place. In 1973, Japan was the technology supplier in 71 percent of the technical assistance agreements entered into in South Korea, and the U.S. followed with 26 percent. Westinghouse, Allis-

---

<sup>81</sup> *Business Asia*, "Major Korean Companies As Partners/Competitors For MNCs-Part III," IX, no. 14 (April 8, 1977): 111; *Business Asia*, "The Business Outlook: Korea," IX, no. 15 (April 15, 1977): 120.

<sup>82</sup> *Business Asia*, "Fairchild's Semiconductor Operation in Asia/Pacific," III, no. 42 (October 20, 1972): 336; *Business Asia*, "South Korea's Expanding Market For Foreign Technical Know-How," V, no. 43 (October 25, 1974): 341; Business International Corp., *World Sourcing Sites in Asia: Manufacturing Costs and Conditions in Hong Kong, Korea, Singapore, and Taiwan* (Hong Kong: Business International Asia/Pacific Ltd., 1979), 123.

<sup>83</sup> *Business Asia*, "The Business Outlook: South Korea," III, no. 1 (January 7, 1972): 6.



Chalmers, and Teledyne Vasco and other American companies entered into technology assistance agreements during this period.<sup>84</sup>

Japan was the contracted supplier in 67 percent of the technology contracts executed by South Korean parties between 1962 and 1976, while the U.S. followed in second place with 21 percent. However, the South Korean government announced a new five-year plan in 1977 that recognized South Korea's "increasing competition from Hong Kong, Singapore, and Taiwan," and aimed to shift South Korea's focus to "heavy machinery, chemicals, and electronics." This plan encouraged "the import of foreign technology" especially from the U.S., the U.K., and West Germany. The plan called for South Korea "to diversify its sources of technology, reducing dependence on Japan." *Business Asia* observed that South Korea was "lagging behind its key competitors—Hong Kong and Taiwan—in the production" of electronic components, and it revealed that South Korean government officials complained that "the country's heavy dependence on 'second-hand' electronics technology from Japan" was the major reason, prompting the turn toward the U.S. and Europe.<sup>85</sup> *Business Asia* reported in March 1978 that the new plans launched by the South Korean government aimed to import about twice as many foreign technologies as had been imported during the previous sixteen years, and the journal reiterated that the government planned to "shift away from the traditional dependence on Japan for the bulk of its technical knowhow." It asserted "the US will become by far the largest supplier of new technology." The journal went on to state that 82 percent of the

---

<sup>84</sup> *Business Asia*, "South Korea's Expanding Market For Foreign Technical Know-How," V, no. 43 (October 25, 1974): 340, 342.

<sup>85</sup> *Business Asia*, "Korean Government Aims to Restructure Industrial Base," IX, no. 36 (September 9, 1977): 282-283.

recommended suppliers for the “technology items slated for inducement over the next two years” were from U.S. firms.<sup>86</sup>

In summary, South Korea had a deep, complex economic relationship with the U.S. from the end of World War II through the 1970s, involving vast amounts of economic aid, military security support, and technology transfer from the U.S. through joint ventures and FDI. Many of South Korea’s critical domestic industrial sectors were influenced by American technology acquired through joint ventures and American investments. By 1978, Japan had significantly exceeded American expenditures in South Korea in direct investments (excluding economic aid) and in supplying technological assistance. But the South Korean government announced plans starting in 1977 to turn away from Japan and strengthen its relationship with the U.S. for technological knowhow. South Korea decided that the United States was their preferred supplier of advanced technology—and I argue that China came to the same decision in 1979 when it issued its new law that opened China to joint ventures and FDI.

### **Taiwan**

The U.S. supported the Nationalist government led by Chiang Kai-shek during the Chinese civil war between the National Party and the Chinese Communist Party. After the Nationalist army fled to Taiwan following their defeat in 1949, the U.S. began providing aid and military protection to Taiwan. American businesses were deeply involved in Taiwan’s economy by 1950. In his November 28, 1950, speech to

---

<sup>86</sup> *Business Asia*, “New Opportunities In Korea’s Plans To Import Technology,” X, no. 10 (March 10, 1978): 75.

the U.N. Security Council, the People's Republic of China's delegate Wu Hsiu-ch'uan claimed:

Economically, the United States Government and American monopolies such as the Westinghouse Electric Company, the Reynolds Metal Company, the American Express Company and others have, through various devices, jointly dominated Taiwan's main industries—electric power, aluminum, cement, fertilizer, and others—controlled the economic life of Taiwan, and actually reduced it to a colony of the United States.<sup>87</sup>

Throughout the period of estrangement between the U.S. and China from 1949-1970, Chinese government officials watched American activities in Taiwan very closely. Mainland China (the People's Republic of China) has long argued that Taiwan (the Republic of China) is a province of mainland China that must be reconciled someday with its parent homeland. But, because the U.S. supported the Nationalists in the Chinese civil war, the U.S. maintained for many years after the Nationalist army fled to Taiwan that Taipei, Taiwan, was the capital of all of China, and mainland China would become reconciled to its Taipei-based parent government after the Chinese Communist Party was toppled.<sup>88</sup> The tensions between the People's Republic of China and the Republic of China eventually resulted in ramifications for international trade, which I will describe later.

The United States provided massive amounts of economic aid to support the Nationalist government during the era of the Cold War. Historian Nancy Bernkopf Tucker observed,

---

<sup>87</sup> "Speech of PRC Delegate Wu Hsiu-ch'uan at Security Council, November 28, 1950 (Extracts)," in Roderick MacFarquhar, *Sino-American Relations, 1949-71*, Documented and introduced by Roderick MacFarquhar (New York: Praeger, 1972), 95.

<sup>88</sup> Carter, *Keeping Faith*, 187.

From 1950 to 1965 the United States became intimately involved in Nationalist Chinese affairs ...From 1950 to 1965 the United States provided an annual average of some \$100 million to Taiwan in nonmilitary assistance. This amount exceeded the per capita contribution made to any other government in the world during the same period. It comprised roughly 6.4% of total gross national product and approximately 34% of total gross investment in the economy. In the especially important area of trade, U.S. assistance paid for 40% of Taiwan's total imports of both goods and services.<sup>89</sup>

According to scholar Jung-en Woo, the U.S. provided \$5.6 billion in American economic and military aid to Taiwan between 1946 and 1976.<sup>90</sup>

The state owned 80 percent of Taiwan's industrial operations in 1953.<sup>91</sup> The U.S. pressed Taiwan to open to foreign investment and to encourage private enterprise in the 1950s. One remarkable success story that resulted from the U.S. involvement in Taiwan was that of Wang Yung-ching. Wang, "a farmer's son with only an elementary school education," created Formosa Plastics Corporation in 1954 using a loan provided through the American aid program.<sup>92</sup> In 1972, Formosa Plastics was Taiwan's "biggest and most profitable manufacturing conglomerate [and]...was one of the world's largest plastics exporters."<sup>93</sup>

---

<sup>89</sup> Nancy Bernkopf Tucker, *Taiwan, Hong Kong, and the United States, 1945-1992: Uncertain Friendships* (New York: Twayne Publishers, 1994), 54.

<sup>90</sup> Woo, *Race to the Swift*, 45.

<sup>91</sup> Tucker, *Taiwan, Hong Kong, and the United States, 1945-1992*, 56.

<sup>92</sup> Associated Press, "Y.C. Wang, Billionaire Who Led Formosa Plastics, Is Dead at 91," *New York Times*, October 16, 2008; Tucker, *Taiwan, Hong Kong, and the United States, 1945-1992*, 56.

<sup>93</sup> *Business Asia*, "Vote of Confidence for Taiwan's Economy," III, no. 37 (September 15, 1972): 290.

Like other East Asian economies, Taiwan began emphasizing exports and changed its policies to encourage foreign investments in the 1960s.<sup>94</sup> American companies made investments in Taiwan and provided advanced technology beginning in the 1960s. For example, Mobil Chemical and Allied Chemical of the U.S. joined Taiwan's Chinese Petroleum Corporation in 1962 to create a joint venture to manufacture fertilizer for the domestic market and for export. This joint venture was then sold to the state-owned Taiwan Fertilizer Corporation in 1971, transferring with it the technology that the U.S. companies had provided.<sup>95</sup> Philco-Ford established a fully owned subsidiary plant in Taiwan in 1965.<sup>96</sup>

During the radical leftist Cultural Revolution, Zhou Enlai expressed China's "Four Principles" in April 1970 to communicate a stand against foreign imperialism. These principles stipulated that China would suspend trade with any Japanese firm that "(1) invested in South Korea or Taiwan; (2) furnished technical assistance to South Korea or Taiwan; (3) supplied arms or other assistance to South Vietnam or Cambodia; or affiliated itself with a US company."<sup>97</sup> As a result, some Japanese firms discontinued business in Taiwan in order to placate China and thereby protect their business with the PRC. Other Japanese firms stated publicly that they were "curbing their Taiwan activities" but then proceeded to do business in Taiwan through indirect means. *Business Asia* reported this news under the heading, "Cold

---

<sup>94</sup> Huang, *FDI in China*, 12.

<sup>95</sup> *Business Asia*, "Mobil, Allied Chemical Sell Taiwan Plant to Government," II, no. 3 (January 15, 1971): 19.

<sup>96</sup> *Business Asia*, "Philco-Ford's Industrial Accidents in Taiwan Spell Clear Warning for International Companies Everywhere," III, no. 45 (November 10, 1972): 353.

<sup>97</sup> *Business Asia*, "Chou's Four Principles," II, no. 31 (July 30, 1971): 245.

feet only in Japan.”<sup>98</sup> Japan then ended diplomatic relations with Taiwan on September 29, 1972, when it entered into the “Joint Communiqué of the Government of Japan and the Government of the People’s Republic of China,” which recognized the PRC as “the sole legal government of China” and defined Taiwan as “an inalienable part of the territory of the People’s Republic of China.”<sup>99</sup> *Business Asia* reported in November 1972 that Taiwan’s business environment continued “to boom, with Japan’s choice of Peking over Taipei primarily resulting in Taiwan diverting trade away from Japan.”<sup>100</sup>

The U.S. took steps in 1970 and subsequent years to improve trade relations between the U.S. and the People’s Republic of China, which were strongly opposed by Taiwan, but Taiwan continued to encourage domestic investments by American companies. Despite the shifting political relations between the U.S., the PRC, and Taiwan, American aid continued to flow into Taiwan and American companies continued to establish operations in Taiwan in the early 1970s. For example, American firms American Cyanamid, Corning Glass, Goodyear Tire & Rubber Company, and USI Far East Corporation all announced expansion plans or new ventures in Taiwan in 1972.<sup>101</sup> Ford Motor Co. announced a \$54 million investment in an automobile plant in 1972. *Business Asia* announced that this was “the single

---

<sup>98</sup> *Business Asia*, “European, US Investors Display Unshattered Confidence In Taiwan Despite Diplomatic Setbacks,” III, no. 13 (March 31, 1972): 98.

<sup>99</sup> Ministry of Foreign Affairs of Japan, “Joint Communiqué of the Government of Japan and the Government of the People’s Republic of China, September 29, 1972,” MOFA, <http://www.mofa.go.jp/region/asia-paci/china/joint72.html> (accessed October 11, 2013).

<sup>100</sup> *Business Asia*, “The Business Outlook: Taiwan,” III, no. 47 (November 24, 1972): 374.

<sup>101</sup> *Business Asia*, “European, US Investors Display Unshattered Confidence In Taiwan Despite Diplomatic Setbacks,” III, no. 13 (March 31, 1972): 97-98.

largest private US investment in the island to date, and the year's largest foreign manufacturing investment.” The article noted that the government of Taiwan quickly approved the investment because it “was primarily interested in introducing new technological know-how from which the existing five car makers could benefit....”<sup>102</sup> The American firm Hercules announced a new polypropylene plant in 1973.<sup>103</sup> *Business Asia* reported in 1973 that U.S. Steel would replace Austrian supplier Voest Steel Corporation in a major venture with the Taiwan government to produce steel.<sup>104</sup> New investments by Union Carbide in petrochemicals, ITT in communications equipment, and Goodrich in synthetic rubber were announced in 1973.<sup>105</sup>

A 1974 *Business Asia* article reported that “the US remained the most important trading partner” for Taiwan, absorbing 38 percent of Taiwan's exports, and the Prime Minister was quoted as stating that Taiwan would “give US products preferential treatment for importation and encourage private firms to source in the US.”<sup>106</sup>

Underscoring the influence that U.S.-based firms had in Taiwan, the government of Taiwan engaged an American management consultant firm to assess and report on new investment opportunities in Taiwan. The consultant firm's report in 1973 emphasized “Taiwan's trend away from labor-intensive assembly operations toward more sophisticated and technologically advanced industries” as well as

---

<sup>102</sup> *Business Asia*, “Ford Investment in Taiwan: A Great Vote of Confidence,” III, no. 46 (November 17, 1972): 365-366.

<sup>103</sup> *Business Asia*, “The Business Outlook: Taiwan,” IV, no. 18 (May 4, 1973): 142.

<sup>104</sup> *Business Asia*, “US Steel Invests in Taiwan,” IV, no. 36 (September 7, 1973): 286.

<sup>105</sup> *Business Asia*, “Business Outlook: Taiwan,” IV, no. 48 (November 30, 1973): 382.

<sup>106</sup> *Business Asia*, “Taiwan's Zooming Foreign Trade Opens Opportunities,” V, no. 17 (April 26, 1974): 130.

opportunities to “support industries that supply major end-product manufacturers” in sectors such as automobiles, petrochemicals, and shipbuilding.<sup>107</sup>

Demonstrating the importance of trade with Taiwan to the U.S., U.S. Secretary of Commerce Frederick Dent announced in July 1973 that the U.S. would open a permanent trade center in Taiwan. Only three other permanent trade centers existed for the Asian region at that time, located in Tokyo, Beirut, and a recently opened one in Singapore. *Business Asia* reported that “an exhibition of industrial and scientific equipment” involving about fifteen American firms would accompany the opening of the new Taiwan trade center.<sup>108</sup>

Taiwan’s retaliation against Japan’s decision to terminate diplomatic relations continued through the mid-1970s. *Business Asia* reported in May 1973, “The government is encouraging imports from the US and discouraging imports from Japan.”<sup>109</sup> This report was followed by another report in November that stated, “...Taiwan still promotes a buy-American policy, and imports from the US are up by about 65% this year, compared with last. Total imports from the US, estimated to reach \$1 billion this year, are likely to increase further.” Acknowledging that Japan was still “an important supplier,” the report stated that “many heavy industries” were tending to “reduce their imports” from Japanese sources.<sup>110</sup>

Japan’s withdrawal from Taiwan, and Taiwan’s corresponding efforts to back away from Japan’s technology, intensified in 1974. A report in *Business Asia* in

---

<sup>107</sup> *Business Asia*, “Taiwan Investment Opportunities,” IV, no. 27 (July 6, 1973): 213.

<sup>108</sup> *Business Asia*, “US Trade Centers: Singapore Opened, Taiwan Planned,” IV, no. 30 (July 27, 1973): 240; *New York Times*, July 23, 1973.

<sup>109</sup> *Business Asia*, “The Business Outlook: Taiwan,” IV, no. 18 (May 4, 1973): 142.

<sup>110</sup> *Business Asia*, “Business Outlook: Taiwan,” IV, no. 48 (November 30, 1973): 382.



January revealed, “Toyota withdrew from technical involvement in Taiwan’s automobile industry” in order to pursue sales of trucks and other products in the PRC, and Ford quickly filled that gap in Taiwan. The report also stated:

Japanese firms have been specifically excluded from bidding on major shipbuilding, electrification, and petrochemical projects in Taiwan...Japan Synthetic Rubber and Nippon Zeon recently lost a contract for a \$16 million synthetic rubber plant to the Badger Co of the US. Again, the Taiwan automobile firm, Yue Loong, is threatening to sever its licensing agreement with Nissan Motors and link up with General Motors of the US. Meanwhile the Taiwan Government is promoting a Buy-American policy...<sup>111</sup>

Taiwan’s “Buy-American” policy in the mid-1970s benefitted American firms, particularly in the area of major government projects. Taiwan announced plan valued at over \$5 billion USD in 1974 to upgrade its infrastructure and build major steel and petrochemical industries, and General Electric was chosen to support this plan by supplying locomotives and upgrading railroad tracks.<sup>112</sup> USS Engineers and Consultants Inc., a subsidiary of US Steel, was selected to manage the construction of a large new steel mill and provide engineering services to it.<sup>113</sup> U.S. firms Gatz Oswego Corporation, Consolidated Navigation, and Associated Maritime Industries participated in a joint venture with the Taiwan government to build a large shipyard that had three times the capacity of Taiwan’s existing shipyard and to build four 445,000-ton supertankers.<sup>114</sup>

---

<sup>111</sup> *Business Asia*, “Problems of Trading With the Two Chinas,” V, no. 1 (January 4, 1974): 7-8.

<sup>112</sup> *Business Asia*, “Large Development Projects Enhance Taiwan’s Economic Status,” V, no. 17 (April 26, 1974): 129.

<sup>113</sup> *Business Asia*, “Taiwan Investment Opportunities,” IV, no. 27 (July 6, 1973): 213.

<sup>114</sup> *Business Asia*, “Large Development Projects Enhance Taiwan’s Economic Status,” V, no. 17 (April 26, 1974): 130.

American advanced technology companies also built plants in Taiwan for critical components or to produce vital gas or chemical products. Union Carbide announced an investment in a new carbon electrode plant in 1974, invested in an industrial gas project in 1975, and announced their involvement in a joint venture in 1976 that was associated with a very large ethylene glycol plant, for which they would be the main source of technology. *Business Asia* reported that this plant was Union Carbide's first manufacturing venture in Taiwan, even though they had been involved in investments and trading in Taiwan since 1967.<sup>115</sup> B.F. Goodrich entered into a joint venture to build Taiwan's first styrene-butadiene rubber plant, and OAK Industries invested in a plant to build laminates.<sup>116</sup> National Distillers & Chemical Corporation of the U.S. entered into a joint venture with the government of Taiwan and a Belgian company to build a polyethylene plant.<sup>117</sup> And Du Pont approached the government of Taiwan in 1975 for approval to enter into a technical cooperation agreement to provide new technology for making hydrogen to a Taiwanese firm.<sup>118</sup>

Despite Taiwan's leaning toward the U.S., Japan continued to be a major supplier of technology to Taiwan. Japanese firms led the rest of the world in technical cooperation agreements in Taiwan. A summary of technical cooperation activity published by *Business Asia* in February 1975 showed that Japanese firms

---

<sup>115</sup> *Business Asia*, "Foreign Direct Investment in Taiwan Slows Down Reflecting Worldwide Slump," VI, no. 8 (February 21, 1975): 61; *Business Asia*, "The Business Outlook: Taiwan," VII, no. 3 (January 16, 1976): 24; *Business Asia*, "Taiwan Pinpoints 123 Priority Areas For Investment," VIII, no. 23 (June 4, 1976): 183.

<sup>116</sup> *Business Asia*, "Foreign Direct Investment in Taiwan Slows Down Reflecting Worldwide Slump," VI, no. 8 (February 21, 1975): 61.

<sup>117</sup> *Business Asia*, "Business Outlook: Taiwan," V, no. 46 (November 15, 1974): 368.

<sup>118</sup> *Business Asia*, "Taiwan: Licensing Terms Stiffen," IX, 48 (December 2, 1977): 384.

were the contracted technology suppliers in almost 74 percent of the technical cooperation agreements executed by Taiwanese entities between 1952 and 1974. American firms accounted for about 18 percent of the total, and European firms were the suppliers in the rest. It noted that seventy-six technical cooperation agreements were approved in 1974 alone. Japanese partners were party to almost 57 percent of them, while American partners were party to about 32 percent. The American share was almost twice the percentage from 1952-1974 but still far below the Japanese level. This report stated that U.S. direct investments in Taiwan totaled \$38.8 million in 1974, compared to \$38.9 million by Japan, but it showed that the U.S. led the world in total investments (not including aid) in Taiwan during the period 1952-1974 with 46 percent of the total. Japan followed at almost 21 percent.<sup>119</sup>

The trend in direct investments turned in favor of the U.S. in 1975, and Japan fell behind. In 1975 the U.S. was the leader in investments in Taiwan, with 42 percent of the eleven-month total reported in January 1976. *Business Asia* reported that “overseas Chinese investors” followed in second place at 29 percent, and Japan followed in third place at 24 percent.<sup>120</sup>

The issue of possible U.S. diplomatic recognition of China and the ramifications for the U.S.-Taiwan relationship started to appear in articles in *Business Asia* in 1977.<sup>121</sup> However, unlike Japan’s experience, China took a much more pragmatic and conciliatory approach to the U.S. In 1977, a senior Chinese official

---

<sup>119</sup> *Business Asia*, “Foreign Direct Investment in Taiwan Slows Down Reflecting Worldwide Slump,” VI, no. 8 (February 21, 1975): 60-61.

<sup>120</sup> *Business Asia*, “Investment in Taiwan,” VII, no. 5 (January 30, 1976): 35.

<sup>121</sup> *Business Asia*, “New Incentives For Taiwan Investors But Clouds Remain,” IX, 29 (July 22, 1977): 231.

stated that China was not concerned about U.S. companies continuing to engage in business in Taiwan after the normalization of relations between China and the U.S.<sup>122</sup> Acknowledging the continuing importance of American technology, Taiwan announced that a forty-three-person mission would travel to the United States in 1978 to acquire \$400 million worth of industrial products and farm equipment. *Business Asia* reported that Taiwan Power was likely to be the biggest buyer and that it sought equipment for Taiwan's four nuclear power plants.<sup>123</sup>

The pattern of direct investments in Taiwan shifted again in the late 1970s. Overseas Chinese investors accounted for 43 percent of the new investments in Taiwan in 1978. The U.S. was the largest non-Chinese investor at 32.7 percent of the new investments, and Japan followed at 23.6 percent. The *World Sourcing Sites in Asia* guidebook, which was published in Hong Kong in 1979 by the publisher of the *Business Asia* journal, commented on Taiwan's dependence on Japanese sources and its goal to shift away from Japanese suppliers:

Due to Taiwan's overdependence on Japan for industrial raw material as well as machinery and equipment supply, the government may, at times, favor US and European investors over the Japanese. In addition, Japanese companies have also used Taiwan as an assembly site for exports to circumvent barriers that the US and the EEC have imposed on Japanese exports. This form of investment increases Taiwan's total exports to these countries, resulting in higher trade barriers for the island's products as a whole. As a result, the government has recently discouraged investment from Japan in areas where Taiwan's own industries have export potential. In 1978, the Investment Commission ruled that new Japanese investment projects and expansion plans by existing Japanese manufacturers of color television set assemblies will no longer receive approval. Furthermore, the government forbade local manufacturers to accept subcontracts from Japanese firms for assembling color television sets in Taiwan for export. When Admiral Overseas Corp—a

---

<sup>122</sup> Edward R. Cony and Peter R. Kann, *Wall Street Journal*, October 4, 1977.

<sup>123</sup> *Business Asia*, "US\$400 Million Opportunity," X, no. 18 (May 5, 1978): 139.

former wholly owned subsidiary of Rockwell International of the US—was seeking a change of ownership, the government announced that it would not grant approval to the transfer if the new investor was a Japanese company or majority Japanese-owned local firm.<sup>124</sup>

Historian Nancy Bernkopf Tucker observed, “Taiwan managed one of the highest sustained growth rates in the world through years of American aid and American investment.”<sup>125</sup> American firms benefitted from Taiwan’s “Buy American” initiative in the 1970s following Japan’s decision to end diplomatic relations with Taiwan in favor of China. The U.S. played an influential and very visible role in Taiwan’s economy in terms of economic aid, consultation and advice, trade, investments, and technology transfer from the end of World War II through the 1970s. Although Japanese firms continued to supply technology to Taiwan throughout the 1970s, American firms became the preferred sources, just as I argue they were China’s preferred sources as China formulated its new law to allow joint ventures and foreign direct investments in 1979.

### **Hong Kong**

Of all of the East Asian “Tiger” economies, Hong Kong was the location in which the investment and technology transfer activities of American firms were most visible to the leaders of the People’s Republic of China. Hong Kong played a key role in the global economy as the center of East Asian finance and trade facilitation before the Chinese Communist Party closed China to capitalism in 1949. After 1949,

---

<sup>124</sup> Business International Corp., *World Sourcing Sites in Asia: Manufacturing Costs and Conditions in Hong Kong, Korea, Singapore, and Taiwan* (Hong Kong: Business International Asia/Pacific Ltd., 1979), 362-363.

<sup>125</sup> Tucker, *Taiwan, Hong Kong, and the United States, 1945-1992*, 5.

and particularly in the 1960s and 1970s, the leaders of China used Hong Kong as an important news gathering location and as a center for unofficial diplomatic contact with other countries. Hong Kong served as China's gateway to the East Asian region, both for two-way trade and for information. For example, Zhou Enlai ordered the Xinhua News Agency to study the economy of Hong Kong as early as 1969.<sup>126</sup> The dominant American role in building Hong Kong's technology-driven, export-oriented economy was clearly visible to China's leaders. I argue that China's reformers likely used the American role in Hong Kong as one of the models for China's economic reforms in 1979.

Although Hong Kong eventually returned to its historical role as a regional center for banking and shipping, it became a successful location for low-cost manufacturing during the 1960s.<sup>127</sup> American and Japanese firms began manufacturing radios and semiconductor components there in the 1960s, and foreign and domestic firms began manufacturing consumer electronic products.<sup>128</sup> Like the other successful East Asian "Tiger" economies, Hong Kong successfully pursued growth through exports of products that were based on foreign-supplied technology. Data published in the March 19, 1971, issue of *Business Asia* showed that the electronics sector provided 61 percent of the exports in 1969 that resulted from

---

<sup>126</sup> Chu, *Chinese Communists and Hong Kong Capitalists*, 46-51.

<sup>127</sup> Craig, "The Rim Nations of East Asia: Vietnam, Taiwan, Korea, Hong, Kong, and Singapore," 921.

<sup>128</sup> David R. Meyer, *Hong Kong as a Global Metropolis* (New York: Cambridge University Press, 2000), 168.

foreign investments.<sup>129</sup> By 1974, 65 percent of annual Hong Kong manufacturing output was exported.<sup>130</sup>

American advanced technology companies established operations in Hong Kong in the 1960s and 1970s. Some American companies were attracted by Hong Kong's long-standing strengths as a regional finance and trade center and located their Asian headquarters there, including Dow Chemical (1966), Fairchild (1969), Goodyear Tire (1973), and Fisher Radio (1975).<sup>131</sup> American technology firms also established manufacturing operations there, including Fairchild (1962), Outboard Marine (1973), Dow Chemical (1974), and Oak Electronics (1974).<sup>132</sup> Other American companies entered Hong Kong through acquisitions or joint ventures. For example, Amerex International acquired a manufacturer of electronic products in Hong Kong in 1972.<sup>133</sup> A new joint venture between Intermagnetics Corporation of the U.S. and a Hong Kong firm to produce magnetic tapes was announced in 1976.<sup>134</sup> Hong Kong proactively sought to attract more American companies to the area in the

---

<sup>129</sup> *Business Asia*, "Foreign Investors in Hong Kong: Government Partly Lifts Veil," II, no. 12 (March 19, 1971), 92.

<sup>130</sup> *Business Asia*, "Business Outlook: Hong Kong," VI, no. 12 (March 21, 1975): 96.

<sup>131</sup> *Business Asia*, "Fairchild's Semiconductor Operation in Asia/Pacific," III, no. 42 (October 20, 1972): 336; *Business Asia*, "The Business Outlook: Hong Kong," III, no. 51 (December 22, 1972): 406; *Business Asia*, "Refinery, Petrochemical Plant Bids Compete for Hong Kong," IV, no. 32 (August 10, 1973): 256; *Business Asia*, "Business Outlook: Hong Kong," VI, no. 12 (March 21, 1975): 96.

<sup>132</sup> *Business Asia*, "Fairchild's Semiconductor Operation in Asia/Pacific," III, no. 42 (October 20, 1972): 336; *Business Asia*, "The Business Outlook: Hong Kong," III, no. 51 (December 22, 1972): 406; *Business Asia*, "OMC Purchases Public Land For New Hong Kong Factory," IV, no. 15 (April 13, 1973): 115; *Business Asia*, "Hong Kong's Land Use Policy Attracts Large Dow Investment," V, no. 13 (March 29, 1974): 99.

<sup>133</sup> *Business Asia*, "The Business Outlook: Hong Kong," III, no. 51 (December 22, 1972): 406.

<sup>134</sup> *Business Asia*, "Foreign Manufacturers Continue to Open Plants in Hong Kong," VII, no. 7 (February 13, 1976): 52.

mid-1970s. A report in the January 2, 1976 issue of *Business Asia* noted that “a recent investment promotion mission to the North American continent encountered considerable interest,” adding that “at least 29 US firms are making plans to set up operations in the colony.”<sup>135</sup>

The U.S. dominated foreign investments in Hong Kong by a wide margin in the 1970s, and Japan followed in second or even third place. Between 1970 and 1975, the U.S. share of foreign investments in Hong Kong ranged between 41 percent (1972) and 49 percent (1970). The electronics sector received most of the foreign investments.<sup>136</sup> The U.S. was also associated with most of the foreign-affiliated manufacturing plants in Hong Kong. American firms were associated with approximately 43 percent and 40 percent of the foreign plants established in Hong Kong in 1972 and 1973, respectively, while Japanese firms were affiliated with almost approximately 22 percent of the foreign plants in both 1973 and 1972.<sup>137</sup> The U.S. share of the total foreign investment in Hong Kong grew between 1973 and 1975 while Japan’s share dropped. *Business Asia* reported in January 1976 that “the US continues as Hong Kong’s most important foreign investor (with 47.8% of the total),

---

<sup>135</sup> *Business Asia*, “The Business Outlook: Hong Kong,” VII, no. 1 (January 2, 1976): 6.

<sup>136</sup> *Business Asia*, “Foreign Investors in Hong Kong: Government Partly Lifts Veil,” II, no. 12 (March 19, 1971), 92; *Business Asia*, “The Business Outlook: Hong Kong,” III, no. 27 (July 7, 1972): 214; *Business Asia*, “Hong Kong’s Land Use Policy Attracts Large Dow Investment,” V, no. 13 (March 29, 1974): 99; *Business Asia*, “Hong Kong Admission Criteria For New Industrial Estates,” V, no. 47 (November 22, 1974): 370.

<sup>137</sup> *Business Asia*, “Hong Kong’s Land Use Policy Attracts Large Dow Investment,” V, no. 13 (March 29, 1974): 99



followed by Japan (15.6%).”<sup>138</sup> The journal repeated this theme near the end of the year when it stated, “The U.S. heads the list of investors with a total of HK\$857 million in 108 businesses [in 1975]. It is followed by Japan (HK\$266 million in 77 ventures)...”<sup>139</sup>

The U.S. Department of Commerce announced changes in export regulations in 1972 that would make imports from the U.S. into Hong Kong easier.<sup>140</sup> American advanced technology companies actively pursued trade with Hong Kong business partners. *Business Asia* reported in May 1973 that twenty-five U.S. technology companies would exhibit their newest products at an exhibition in Hong Kong organized by the U.S. Department of Commerce. The companies that were scheduled to participate included American Optical, Bausch & Lomb, Eastman Kodak, Fisher Scientific, Hewlett-Packard, 3-M, Monroe International, National Cash Register, Pitney Bowes, Rank Xerox, SCM, Systems Electronics, Tektronix, and Victor Intercontinental.<sup>141</sup> A trade mission representing approximately fifty U.S. manufacturing firms visited Hong Kong in September 1978 to explore opportunities for “investments in the electronics and electrical components field.”<sup>142</sup>

At the same time, the Hong Kong government actively sought technology transfer into the region. A *Business Asia* report in August 1974 stated, “the government actively encourages the broadening of local industry’s narrow base.

---

<sup>138</sup> *Business Asia*, “The Business Outlook: Hong Kong,” VII, no. 1 (January 2, 1976): 6-7.

<sup>139</sup> *Business Asia*, “The Business Outlook: Hong Kong,” VIII, no. 47 (November 19, 1976): 376.

<sup>140</sup> *Business Asia*, “Asia/Pacific Briefs,” III, no. 37 (September 15, 1972): 296.

<sup>141</sup> *Business Asia*, “US Exhibit in Hong Kong,” IV, no. 19 (May 11, 1973): 149.

<sup>142</sup> Business International Corp. *World Sourcing Sites in Asia*, 30.

Technology-intensive investments are particularly welcome, and joint ventures or licensing agreements that add new products to the colony's manufacturing lines are likely to increase in the future."<sup>143</sup> *Business Asia* reported in May 1976 that a promotional tour from Hong Kong would visit the U.S. in midyear and pointed out that the government welcomed "capital- and technology-intensive industries."<sup>144</sup>

Hong Kong played a vital and financially lucrative role as an intermediate hub between China and its trading partners in the West and in East Asia. Thus, Hong Kong served as China's "window onto the world economy."<sup>145</sup> *Business Asia* reported in January 1977 that China had "just opened its largest Hong Kong department store, complete with computerized point-of-sale equipment, and mail-order services covering the US, Europe, Japan, and Southeast Asia."<sup>146</sup> Hong Kong represented an opening to the West in other ways, too. China asked the National Council for U.S.-China Trade for their recommendations of American companies that were interested in joint ventures or cooperation agreements in Hong Kong or Macao. With this official sanction, Chinese businessmen began experimenting with joint ventures and other forms of cooperation agreements with foreign companies in Hong Kong and Macao in 1978, before Chinese law allowed joint ventures in China in 1979.<sup>147</sup> *Business Asia* reported in December 1978 that a "Hong Kong lawyer trained

---

<sup>143</sup> *Business Asia*, "Business Outlook: Hong Kong," V, no. 33 (August 16, 1974): 264.

<sup>144</sup> *Business Asia*, "The Business Outlook: Hong Kong," VIII, no. 20 (May 14, 1976): 160.

<sup>145</sup> Meyer, *Hong Kong as a Global Metropolis*, Introductory Abstract, np.

<sup>146</sup> *Business Asia*, "China's Emerging Emphasis on Economy Creates Opportunities," IX, no. 4 (January 28, 1977): 32.

<sup>147</sup> *Business Asia*, "New Breakthrough In Selling to China: Countertrade Comes of Age," X, no. 40 (October 6, 1978): 316.

in the UK and US” was advising China on changes to Chinese law that would allow foreign equity ownership in China-based companies, which presumably resulted in the joint venture law issued in China in July 1979.<sup>148</sup>

After China passed a law in July 1979 allowing Chinese joint ventures with foreign firms, two special export zones were established in Kwangtung province, near Hong Kong. Of the two, Shekou was only interested in attracting joint ventures that would be engaged in manufacturing activities for export, while Shumchun facilitated compensation trade whereby the suppliers of foreign technology were paid with products manufactured with that technology.<sup>149</sup>

According to Hong Kong-based *Business Asia*, U.S. subsidiaries located in Hong Kong “often acted as China watchers for their parents,” gathering information and assessing opportunities.<sup>150</sup> Hong Kong also served as a portal for China for watching the West. China scholar Lawrence C. Reardon said the Xinhua News Agency was the “eyes and ears” of China in Hong Kong.<sup>151</sup> China’s leaders closely monitored economic conditions in Hong Kong. One must conclude that the activities, investments, and technology transfer activities of U.S. firms in Hong Kong were closely monitored, studied, and analyzed by China’s planners and decision-makers. Certainly Hong Kong also served as a gateway from which they could also similarly

---

<sup>148</sup> *Business Asia*, “New Breakthroughs Coming in China Deals: Commercial Revolution,” X, no. 49 (December 8, 1978): 385.

<sup>149</sup> *Business Asia*, “China’s Decentralization Spells Direct Deals With the Provinces,” XI, no. 38 (September 21, 1979): 303; *Business Asia*, “Kwangtung Offers Sites For Joint Ventures In China’s Export Zones,” XI, no. 40 (October 5, 1979): 313-314.

<sup>150</sup> *Business Asia*, “Sino-US Trade Jumps—Hong Kong Benefits,” IV, no. 3 (January 19, 1973): 19.

<sup>151</sup> Lawrence C. Reardon, *The Reluctant Dragon: Crisis Cycles in Chinese Foreign Economic Policy* (Seattle: University of Washington Press, 2002), 147.

survey U.S. contributions to the rest of the fast-growing East Asian “Tiger” economies.

## **Singapore**

I make reference throughout this thesis to China’s economic reforms that began in 1978. Historian Ezra Vogel clarified exactly when the decisions were made in 1978 that resulted in the launching of China’s dramatic economic reforms. According to Vogel,

In official Communist Party histories, the Third Plenum of the 11<sup>th</sup> Party Congress, December 18-22, [1978] is acknowledged as the meeting that launched Deng’s policies of ‘reform and opening.’ In fact, the plenum was merely a formal ratification of what had been resolved in the lively discussions at the Central Party Work Conference held from November 10 to December 15 [1978].<sup>152</sup>

The outcome of this Central Party Work Conference dramatically changed China’s economy and the world economy. But Deng Xiaoping, the Chinese leader almost universally credited with leading China’s reforms, was not in China when this Work Conference began. He was actually in Singapore on November 13, 1978.<sup>153</sup> He returned to Beijing five days after the Work Conference started.<sup>154</sup> Deng entered this extremely important conference with the image that he had just acquired of Singapore, and he spoke positively about certain attributes of Singapore’s economy in

---

<sup>152</sup> Vogel, *Deng Xiaoping and the Transformation of China*, 229.

<sup>153</sup> “Chinese Vice-Premier Teng Briefed on Housing Development in Singapore,” *Xinhua General News Service*, November 13, 1978.

<sup>154</sup> Ezra F. Vogel, *Deng Xiaoping and the Transformation of China*, 240.

his speech in the closing session of this Work Conference.<sup>155</sup> I agree with other scholars who have argued that Deng and other senior Chinese leaders used Singapore and the other East Asian “Tiger” economies as models for their reforms, particularly the 1979 reforms that allowed joint ventures and foreign direct investment. However, I argue that China’s leaders in 1979 likely wanted to specifically attract American firms with superior technology to transfer technology to China in order to accelerate China’s progress in technological modernization.

Singapore’s economy in the 1960s was dependent on the exportation of oil and petroleum, but manufacturing activity in Singapore turned toward exports in the late 1960s. Like the other regional “Tiger” economies, Singapore focused on manufacturing electrical and electronic products for export during the late 1960s and 1970s.<sup>156</sup> Success came quickly. An August 1972 article titled “Singapore Develops Fast As major Electronics Center” in *Business Asia* reported that Singapore had become “a major center for the manufacture of sophisticated electronics components.” The growth of this sector was rapid, and the technology concentration included the leading edge of advanced technology. Singapore’s electronics industry’s output grew from \$3 million in 1968 to \$110 million in 1971, driven by American manufacturers. Fifty-nine million dollars of the 1971 output was derived from

---

<sup>155</sup> Yu Guangyan, *Deng Xiaoping Shakes the World: An Eyewitness Account of China’s Party Work Conference and the Third Plenum (November-December, 1978)*, ed. Ezra F. Vogel and Steven I. Levine (Norwalk, CT: EastBridge, 2004), 136.

<sup>156</sup> W. G. Huff, *The Economic Growth of Singapore: Trade and Development in the twentieth century* (New York: Cambridge University Press, 1994), 307-332.

semiconductor manufacturing. The semiconductor-manufacturing segment in particular experienced a 269 percent increase between 1969 and 1971.<sup>157</sup>

Singapore welcomed foreign capital and technology, which fueled its rapid growth and economic success. American technology companies established operations in Singapore beginning in the late 1960s. For example, Cummins Diesel International Ltd., a subsidiary of Cummins Engine Company, moved its East Asian headquarters to Singapore from Hong Kong in 1967.<sup>158</sup> National Semiconductors established its first plant in Asia in Singapore in 1968. This plant was one of the first American electronics plants in Singapore.<sup>159</sup> Fairchild established a semiconductor plant in Singapore in 1968.<sup>160</sup> SCM Corporation established Singapore's first typewriter manufacturing facility when it invested in a wholly owned venture to make Corona brand typewriters in 1973.<sup>161</sup>

Large American tool making and engineering firms invested in Singapore in the early 1970s in both new and existing plants.<sup>162</sup> For example, American manufacturer LeBlond announced an investment in Singapore in precision lathes in

---

<sup>157</sup> *Business Asia*, "Singapore Develops Fast As Major Electronics Center," III, no. 33 (August 18, 1972): 262-263.

<sup>158</sup> *Business Asia*, "Singapore—A Happy Selection for Cummins Diesel International," III, no. 10 (March 10, 1972): 79.

<sup>159</sup> *Business Asia*, "Singapore Electronics Firms Cut Costs by Laying Off Labor," V, no. 33 (August 16, 1974): 259.

<sup>160</sup> *Business Asia*, "Fairchild's Semiconductor Operation in Asia/Pacific," III, no. 42 (October 20, 1972): 336.

<sup>161</sup> *Business Asia*, "Singapore's Investment Policy: Two Cases to Prove a Point," IV, no. 7 (February 16, 1973): 52.

<sup>162</sup> *Business Asia*, "The Business Outlook: Singapore," III, no. 29 (July 21, 1972): 230; *Business Asia*, "The Business Outlook: Singapore," III, no. 48 (December 1, 1972): 382.

1974.<sup>163</sup> *Business Asia* reported in August 1973 that “while capital intensive, high-technology industries will continue to expand due to official encouragement, investment commitments in low-technology industries will continue to diminish.” The report went on to note the prominence of American and Japanese firms amongst the new investors, and it highlighted three investments by American firms. Air Filters and Johns-Manville had made investments in filtration products, and Cincinnati Milacron had made an investment in plastic molding equipment.<sup>164</sup> *Business Asia* reported in October 1977 that Singapore’s Economic Development Board had “recently marked out certain industries to which US investment is particularly to be wooed. These include aircraft manufacturing and related industries, communications equipment, specialty chemicals, consumer and industrial electronics products, and medical equipment.”<sup>165</sup>

Japan was the leader in total foreign investments in Singapore in 1972 with investments that included non-manufacturing activities such as banking and finance. Japan was also Singapore’s leading partner in trade in 1974, ahead of Malaysia and the U.S.<sup>166</sup> But the U.S. led Japan by a wide margin in the early 1970s in investments in the manufacturing sector, with 37.3 percent share in 1973 compared to Japan’s 6 percent share. The American share in manufacturing investments dropped to 32.9 percent in 1976 while Japan’s share increased to approximately 14 percent, reflecting

---

<sup>163</sup> *Business Asia*, “Some New Metalworking and Precision Engineering Investments in Singapore,” V, no. 11 (March 15, 1974): 88.

<sup>164</sup> *Business Asia*, “The Business Outlook: Singapore,” IV, no. 34 (August 24, 1973): 271.

<sup>165</sup> *Business Asia*, “Singapore-US Relations Receive a Small Boost From Lee’s Recent Visit,” IX, no. 43 (October 28, 1977): 342.

<sup>166</sup> *Business Asia*, “Business Outlook: Singapore,” V, no. 38 (September 20, 1974): 304.

a decline in American manufacturing investments in Singapore, yet the American share remained more than double that of the Japanese. The U.S. also moved ahead of the Japanese in trade. *Business Asia* reported in October 1977 that the U.S. was “Singapore’s main source of investment capital” as well as “Singapore’s top trading partner.”<sup>167</sup>

American companies dominated the electronics-manufacturing sector in Singapore. Of the twenty-three companies identified by *Business Asia* in August 1972 as “Singapore’s Electronics Manufacturers,” sixteen of them (70 percent) were American firms. An accompanying article explained that this list showed the “electronics firms already operating in Singapore,” suggesting that the listing was all-inclusive of current manufacturers. This list included these well-known American advanced technology firms: Fairchild Semiconductor, General Electric, Hewlett-Packard, Litton Industries, National Semiconductor, Sperry Rand, Teledyne, Texas Instruments, and Union Carbide.<sup>168</sup>

American companies actively pursued opportunities for sales as well as investments in Singapore during the 1970s, and the U.S. government recognized Singapore’s importance. Trade between Singapore and the U.S. boomed, increasing by 28.3 percent between 1971 and 1972. *Business Asia* reported in April 1973 that Singapore was then hosting “the largest US Government-sponsored commercial exhibition ever held in Southeast Asia,” at which seventy American manufacturers

---

<sup>167</sup> *Business Asia*, “Singapore-US Relations Receive a Small Boost From Lee’s Recent Visit,” IX, no. 43 (October 28, 1977): 342.

<sup>168</sup> *Business Asia*, “Singapore’s Electronics Manufacturers,” III, no. 33 (August 18, 1972): 263.



were displaying scientific, business, construction, logging, and sawmill equipment.<sup>169</sup> Underscoring Singapore's importance to American trade, *Business Asia* announced in April 1973 that the U.S. Department of Commerce was establishing a permanent trade center in Singapore. The journal pointed out "only two other permanent US trade centers exist in Asia—in Tokyo and Beirut."<sup>170</sup> This trade center opened in July with an exhibition supported by twenty American companies affiliated with marine technology and shipboard products. The exhibition showcased electronic navigation, communications, and instrumentation.<sup>171</sup>

During a period in the early 1990s when China's economic reforms stalled, Deng Xiaoping publicly revealed his respect for Singapore's development. According to journalist Nicholas Kristof in an article in the August 9, 1992 issue of *The New York Times*, Deng challenged Guangdong Province, which borders Hong Kong, to "catch up with the 'four dragons' [Singapore, Taiwan, Hong Kong, and South Korea] over the next two decades, 'not only catching up with them in terms of economic prosperity but also in terms of social order and public conduct.'"

According to Kristof, Deng "also called for China to build 'several Hong Kongs' along its coast." Kristof quoted Shanghai's Communist Party leader as saying "that China aimed to learn from the policies of South Korea and Singapore in developing their economies."<sup>172</sup>

---

<sup>169</sup> *Business Asia*, "US Exhibition in Singapore," IV, no. 15 (April 13, 1973): 120.

<sup>170</sup> *Business Asia*, "Asia/Pacific Briefs," IV, no. 16 (April 20, 1973): 128.

<sup>171</sup> *Business Asia*, "US Trade Centers: Singapore Opened, Taiwan Planned," IV, no. 30 (July 27, 1973): 240.

<sup>172</sup> Nicholas D. Kristof, "China Sees Singapore As a Model for Progress," *The World, The New York Times*, August 9, 1992.

The impact on the global distribution of manufacturing supported by the transfer of technology and manufacturing from the U.S. to the East Asian “Tiger” economies during the 1960s and 1970s was profound. Between 1963 and 1976, the percentage of global manufacturing that was located in the U.S. fell from 40 percent to 35 percent, while the percentage of global manufacturing that was located in Japan, Hong Kong, South Korea, Taiwan and Singapore grew from almost 6 percent to over 10 percent<sup>173</sup>:

Geographical Distribution of World Industrial Production

	1963	1970	1973	1974	1975	1976
<b>United States</b>	<b>40.25</b>	<b>36.9</b>	<b>36.59</b>	<b>36.3</b>	<b>34.97</b>	<b>35.42</b>
Japan	5.48	9.28	9.74	9.28	8.88	9.06
Hong Kong	0.08	0.15	0.18	0.17	0.17	0.21
South Korea	0.11	0.22	0.32	0.41	0.51	0.63
Taiwan	0.11	0.23	0.34	0.33	0.37	0.42
Singapore	0.05	0.06	0.08	0.08	0.09	0.09
<b>Total "Asian Tigers"</b>	<b>5.83</b>	<b>9.94</b>	<b>10.66</b>	<b>10.27</b>	<b>10.02</b>	<b>10.41</b>
Rest of World	53.92	53.16	52.75	53.43	55.01	54.17
World	100	100	100	100	100	100

(Data taken from William H. Branson, Herbert Giersch, and Peter G. Peterson, “Trends in United States International Trade and Investment since World War II,” in *The American Economy in Transition*, edited by Martin Feldstein (Chicago: University of Chicago Press, 1980), 192)

The Chinese government was very aware of American activities in the East Asian region. As early as 1973, China operated large “retail Emporiums” in Singapore and Hong Kong, which allowed them first-hand insight into the economic growth models that were successfully implemented in those city-states.<sup>174</sup> Japan,

<sup>173</sup> William H. Branson, Herbert Giersch, and Peter G. Peterson, “Trends in United States International Trade and Investment since World War II,” in *The American Economy in Transition*, ed. Martin Feldstein (Chicago: University of Chicago Press, 1980), 192.

<sup>174</sup> Gale Cengage Learning, *Administrative Files: Subject File, NCUSCT:-Formation of Council, 1973 (1)-(2)*. 1973. NCUSCT.

South Korea, Taiwan, Singapore, and especially Hong Kong traded actively with China during the 1970s, providing channels for observation and deep interactions between parties on both sides. By the late 1970s, advanced communication systems linked China with the world. In 1976, the first undersea cable between China and Japan was announced, which replaced satellite communications between the two countries, and a satellite connection was announced between China and Singapore.<sup>175</sup> Modern airports supporting China's fleet of American and British airplanes linked China with the rest of the world.<sup>176</sup> And most importantly, the Xinhua News Agency provided daily briefing reports on world news to China's leaders. Evidence suggests that HK Xinhua was an important source in Hong Kong for gathering news for China's leaders about the rapidly growing "Tiger" economies.

Without specifically identifying the U.S. as an influence for China's reforms, one group of scholars and a retired CEO with significant experience in China noted that China studied the experiences of other developing countries, stating in 1991: "In its turn to pragmatism the Chinese government has sought to learn lessons from the experience of other developing countries with foreign direct investment (FDI). It commissioned a number of studies by U.N. organizations and examined the record of many other countries." This group went on to argue that China clearly observed the economic success of its East Asian neighbors and their welcoming of FDI:

---

[http://go.galegroup.com/gdsc/i.do?&id=GALE%7CSC5102057911&v=2.1&u=acd\\_gdsc&it=r&p=GDSC&sw=w&viewtype=fullcitation](http://go.galegroup.com/gdsc/i.do?&id=GALE%7CSC5102057911&v=2.1&u=acd_gdsc&it=r&p=GDSC&sw=w&viewtype=fullcitation) (accessed October 21, 2012).

<sup>175</sup> *Business Asia*, "China Letter: New Trade Corporation Expected To Buy Packaging Equipment," VIII, no. 24 (June 11, 1976): 187; *Business Asia*, "Passage of Marshal Chu The Limelights Succession Question," VIII, no. 28, (July 9, 1976): 224.

<sup>176</sup> *Business Asia*, "China Letter: New Trade Corporation Expected To Buy Packaging Equipment," VIII, no. 24 (June 11, 1976): 187.

China has been pressed from the east and south by models of successful economic development in Japan and the “four dragons”—Korea, Taiwan, and the city-states of Hong Kong and Singapore. Each of these has close cultural and historical ties to China, resulting in competitive as well as collaborative relations. Despite the relative isolation of China, it has witnessed these successes and feels their competitive pressures as it opens into the world market. The success of neighbors has been a significant encouragement to China’s opening.

The success of Japan and the “four dragons” has involved modification of the traditional oriental governmental control over economic activity and a relaxation of centralized authority toward more open economies. They have not fully adopted the Western model of development, but have relied on a stimulus to exports (rather than import substitution), on the free market and technology and private enterprise, and on FDI inflows.<sup>177</sup>

Chair of the Council of Economic Advisors under President Gerald Ford

between 1974 and 1977, and later chairman of the Federal Reserve Board between

1987 and 2006, Alan Greenspan was similarly specific about the influence of the East

Asian “Tigers” on China’s economic reforms:

Before China reinvented itself as East Asia’s eight-hundred pound economic gorilla, the nations nicknamed the “Asian Tigers” tested and perfected the economic model China has chosen to pursue. China’s export-led explosion in economic growth has clearly followed the earlier path of these Tigers—particularly Hong Kong, Taiwan, Korea, and Singapore. Their model is simple and effective. The developing nation opens up part or all of its economy to foreign investment to employ a low-wage, but often educated, workforce. Sometimes it’s politically easier to set up designated geographic areas such as China’s Special Economic Zones to welcome foreign investment and its technology.<sup>178</sup>

---

<sup>177</sup> James E. Shapiro, Jack N. Behrman, William A. Fischer, and Simon G. Powell, *Direct Investment and Joint Ventures in China: A Handbook for Corporate Negotiators* (New York: Quorum Books, 1991), 3, 38-39.

<sup>178</sup> Alan Greenspan, *The Age of Turbulence: Adventures in a New World* (New York: Penguin Press, 2007), 311.

Professor David Shambaugh asserted that “Deng studied the East Asian development model carefully.”<sup>179</sup> I argue that Deng, Hua, and other leaders of China likely also studied the role that American investments and technology played in these successful East Asian regional economies. They understood that the course taken by these five countries was to import foreign technology and to utilize it as the basis for export-driven economic growth. They recognized that this model would serve China well as a development model. I argue that China’s leaders recognized that the “Tiger” economies were beneficiaries of American investments and technology, and their reforms in 1979 were likely directed at specifically attracting American investments and technology to China.

---

<sup>179</sup> David Shambaugh, “Deng Xiaoping: The Politician,” in *Deng Xiaoping: Portrait of a Chinese Statesman*, ed. David Shambaugh (New York: Oxford University Press, 1995), 82.

## Chapter 3: U.S. Involvement in the Soviet Bloc

Primary sources show that China's reformers studied the experiences of the Eastern European allies of the Soviet Union, particularly Romania and Yugoslavia, and secondary sources report that the reformers considered those models as they formulated the reforms of 1978 and 1979.<sup>180</sup> However, these reports do not acknowledge the importance of the technology transfer activities of American companies in these countries.

For example, Mao's immediate successor Hua Guofeng pointed to the experiences of Yugoslavia and Romania as learning opportunities for China after he visited those countries in August 1978, just prior to the Work Conference and Third Plenum in November and December that launched China's economic reforms. According to Ezra Vogel, "Upon his return, Hua reported on what China could learn from Yugoslavia and Romania: those countries accepted foreign currency, had joint ventures with foreign countries, carried on compensation trade (countertrade in which investments are repaid from their profits), and brought in foreign technology—all without any loss of sovereignty."<sup>181</sup> The Chinese press was made aware of Hua's observations, which I argue signaled that Chinese decision makers wanted the public and the West to know that the East European reform model was being considered as a model for reforms. In October 1978 *Business Asia* reported,

---

<sup>180</sup> See Pearson, *Joint Ventures in the People's Republic of China*, and Halpern, "Learning from Abroad: Chinese Views of the East European Economic Experience"; *Business Asia*, "New Breakthrough in Selling to China: Countertrade Comes of Age," X, no. 40 (October 6, 1978): 316-317.

<sup>181</sup> Vogel, *Deng Xiaoping and the Transformation of China*, 189.

Since Chairman Hua-Kuo-feng's recent visit to Yugoslavia and Romania, the Peking press has been playing up the valuable East European experience China could adapt to its own conditions, especially in the field of foreign technology acquisition. By 1967, more than 300 firms had concluded various forms of coproduction and cooperation agreements with Belgrade. That year, a new law was drafted, allowing free transfer of capital and profits for foreign investors and opening the door to joint ventures. If China follows a similar pattern, joint equity ventures may be only a few years off.<sup>182</sup>

In addition, primary sources and the secondary literature widely report that China and the Soviet Union were enemies in the 1960s and 1970s, and China's leaders including Mao and Deng thought that U.S. government efforts at détente failed to reflect the threat that they believed the Soviet Union posed to China and the world. However, these do not acknowledge the importance of the technology transfer activities of American companies to the Soviet Union and its East European allies. It is important, therefore, to examine the history of the transfer of advanced technologies by American companies to the Soviet Union and its East European allies during the 1960s and 1970s.

The United States and the Soviet Union expanded trade relations in the 1950s, which opened the door to increased contact between the two countries. As soon as the door opened, American companies rushed to develop trade opportunities with the Soviet Union and the Eastern European countries aligned with it—East Germany, Poland, Hungary, Bulgaria, Czechoslovakia, Romania, Albania, and Yugoslavia—known together as the Soviet Bloc. The U.S. and the U.S.S.R. then launched an era of détente beginning in the late 1960s that was intended to lessen tensions between these superpowers and reduce the risk of nuclear war. American firms entered into

---

<sup>182</sup> *Business Asia*, "New Breakthrough in Selling to China: Countertrade Comes of Age," X, no. 40 (October 6, 1978): 316-317.

technology transfer relationships for their advanced technology within the Soviet Bloc, including licenses and joint ventures where they were allowed. The economic and military strength of the Soviet Union and its allies increased as a result of the transfer of American technology.<sup>183</sup>

However, China and the Soviet Union became enemies during the 1960s. By the end of the 1960s, the Soviet Union and China had troops massed at their shared border, and some limited skirmishes occurred. Mao Zedong, Deng Xiaoping, and other leaders in China believed that war between China and the Soviet Union was inevitable. I argue that China's leaders saw American technology transfer to the Soviet Bloc as a serious strategic threat to the security of China and China's joint venture law in 1979 was likely influenced by its need to draw American firms and their advanced technology to China to counter that threat.

The Soviet Union accepted foreign capital and engaged in joint ventures with foreign companies during its earliest days under Vladimir Lenin. According to Chinese trade official Zhang Peiji, "About two-thirds of the projects in the period of the First Five Year Plan were constructed by using capital and technology from the United States and Germany."<sup>184</sup> Josef Stalin terminated these cooperative linkages when relations between the U.S. and the Soviet Union chilled at the beginning of the

---

<sup>183</sup> See the testimonies and evidence presented in the hearings held by the Committee on Governmental Affairs, Permanent Subcommittee on Investigations, *Transfer of United States High Technology to the Soviet Union and Soviet Bloc Nations*, 97<sup>th</sup> Cong., 2<sup>nd</sup> sess., 1982.

<sup>184</sup> Zhang Peiji, "China's Strategy and Policy on Utilizing Foreign Capital," in Richard D. Robinson, ed., *Foreign Capital and Technology in China*, 4. Zhang was Director, International Trade Research Institute, China Ministry of Foreign Relations and Trade (MOFERT).



Cold War, and the U.S. terminated the Soviet Union's Most Favored Nation (MFN) trade status in the early 1950s.

However, the U.S. continued active trade with the Soviet Bloc after 1950 but officially barred most trade with China until 1971. Imports to the U.S. from the Soviet Bloc reached \$62.6 million in 1958 compared to \$0.2 million from China, and U.S. exports to the Soviet Bloc totaled \$113.2 million while there were none to China.<sup>185</sup>

China built a close alliance with the Soviet Union in the 1950s when anti-communist political forces in the U.S. rejected any prospects for trade and diplomatic relations after the 1949 Communist Revolution and the start of the Korean War. The Soviet Union provided large-scale, fully built industrial plants to China, and Soviet technologists were placed in China to provide engineering and technical support. However, China's relationship with the U.S.S.R. fractured starting in the mid-1950s, and the Soviet technologists were pulled out of China in 1960.<sup>186</sup> China's relationship with the Soviet Union deteriorated even further in the 1960s as Moscow attempted to tightly control all of the socialist countries. After the Soviets invaded Prague on August 21, 1968, China resumed previously stalled talks with the United States. Soviet and Chinese military clashes along the Chinese-Soviet border in Mongolia in 1969 led to a buildup of armed forces and the positioning of nuclear

---

<sup>185</sup> James Z. Gao, "Rediscovery of Western Science and Technology and Definition of Chinese Foreign Policy," 35.

<sup>186</sup> John K. Fairbank, "The People's Republic," 965.

weapons for possible use. The threat of full-scale war motivated China to repair its relationship with the U.S. in order to create an alliance against the Soviet Union.<sup>187</sup>

However, the Chinese Anti-Rightist Campaign of 1957-1958 and the 1966-1976 Cultural Revolution in China caused massive domestic instability, particularly among educated technologists and scientists, and stalled domestic technological development. Mao distrusted intellectuals because he believed that most intellectuals were not Marxists. According to John King Fairbank, Mao claimed that “all great intellectual achievements had been made by relatively uneducated youth” and “worship of technology was a fetish.”<sup>188</sup> Mao launched a campaign against intellectuals in June 1957 called the “Anti-Rightist Campaign,” which lasted through 1958. Hundreds of thousands of skilled and educated Chinese intellectuals were purged from their work under suspicion of being too soft on capitalism and insufficiently revolutionary. Less than a decade later, Mao launched the Great Proletariat Cultural Revolution in 1966 to purge the Chinese Communist Party and Chinese society of “capitalist roaders” by young, undisciplined Red Guard activists. Vast numbers of scientists, technologists, educators and intellectuals were stripped of their jobs by the Red Guard and sent to the countryside to perform rural manual labor or in many cases, publically humiliated, tortured, or even murdered. Universities and technical schools were closed, and technology advancement came to a halt in China. The Red Guard took over the domestic foreign affairs offices as well and brought foreign relations with the U.S. and other Western countries to a halt. Though the

---

<sup>187</sup> Roderick MacFarquhar, *Sino-American Relations, 1949-71*, 242; Kathlin Smith, “The Role of Scientists in Normalizing U.S.-China Relations,” 120.

<sup>188</sup> John King Fairbank and Merle Goldman, *China: A New History* (Cambridge, MA: Belknap Press), 364, 367.

most violent part of the Cultural Revolution ended in 1969, the strong undercurrent of anti-intellectualism disrupted scientific and technological development until Mao's death in 1976.<sup>189</sup> Thus, while the rest of the world made great advances between the 1950s and the 1970s in electronics, chemicals, communications, transportation, and other fields, China lost twenty important years in the development of its domestic science and technology capabilities. A great gap developed between its domestic capabilities in agriculture, industry, strategic defense, and science and technology and the technologically advanced countries of the world, especially the U.S.

As the antagonism between China and the U.S.S.R. intensified, Mao turned toward the U.S. But by the time Mao Zedong turned his priority to strengthening China's relationship with the U.S., science and technology cooperation and technology transfer through trade between the United States and the Soviet Bloc were both already quite advanced. The U.S. and the U.S.S.R. had maintained biennial agreements on scientific and cultural exchanges since 1958.<sup>190</sup> The U.S. experienced increased trade with the Soviet Union in the second half of the 1960s, both in terms of exports and imports:

---

<sup>189</sup> John King Fairbank and Merle Goldman, *China*, 364-367, 383-405.

<sup>190</sup> Congressional Research Service, Library of Congress, *Technology Transfer and Scientific Cooperation Between the United States and the Soviet Union: A Review*, prepared for the House Subcommittee on International Security and Scientific Affairs of the Committee on International Relations, 95<sup>th</sup> Cong., 1<sup>st</sup> sess., May 26, 1977, xi.

Developed West and US Trade with the USSR, 1965-1971 (USD \$Million)				
	Developed West	Developed West	United States	United States
	Exports	Imports	Exports	Imports
1965	1397	1712	44	43
1966	1475	1935	42	50
1967	1587	2195	60	41
1968	1896	2322	57	58
1969	2277	2458	106	51
1970	2603	2733	118	72

(From CIA, "Détente and US-Soviet Trade," 7 March 1972,  
[http://www.foia.cia.gov/sites/default/files/document\\_conversions/89801/DOC\\_0000307809.pdf](http://www.foia.cia.gov/sites/default/files/document_conversions/89801/DOC_0000307809.pdf)  
 (accessed September 26, 2013))

The CIA reported that American exports to the U.S.S.R. were for goods that were "not normally available elsewhere in the quantity or quality that the US can furnish," and that this trade reflected "the USSR's need for Western technology and equipment."<sup>191</sup>

The decade of the 1970s was a period of greater cooperation between the U.S. and the Soviet Union and a relaxation of Cold War tensions. Known as détente, these efforts were first conceptualized by President-elect Richard Nixon and Henry Kissinger during the transition period following Nixon's election in 1968, and were linked with Soviet interest in expanding trade opportunities from the start. According to Nixon, "we decided to link progress in such areas of Soviet concern as strategic arms limitation and increased trade with progress in areas that were important to us..."<sup>192</sup> Nixon signaled his new approach to his Cold War enemies in his first inauguration speech, stating that "After a period of confrontation, we are entering an era of negotiation. Let all nations know that during this administration our lines of

---

<sup>191</sup> CIA, "Détente and US-Soviet Trade," 1, 5.

<sup>192</sup> Richard Nixon, *The Memoirs of Richard Nixon* (New York: Grosset & Dunlap, 1978), 346.

communication will be open.”<sup>193</sup> According to former President Gerald Ford, the deepening antagonism between China and the Soviet Union opened a path for the U.S. to strengthen ties with the U.S.S.R. Ford observed that efforts directed at stronger ties with the Soviet Union were possible “only because the Soviet leaders were becoming concerned about developments within the People’s Republic of China,” where public speeches and propaganda underscored Mao’s and the other Chinese leaders’ distrust and resentment of the Soviets.<sup>194</sup> Nixon played upon this concern to the fullest in order to maximize the advantage to the U.S. of a closer relationship with the Soviets.<sup>195</sup>

American trade with the Soviet Union turned a corner in May 1971 when the U.S. loosened controls on the export of automobile manufacturing equipment, including machine tools. The U.S.S.R. subsequently placed orders for almost \$250 million of machine tools, oil and gas pipeline equipment, mining equipment, electronics, and other products from the U.S.<sup>196</sup>

In 1971, as Dr. Henry Kissinger met with Chinese Premier Zhou Enlai to prepare for an unprecedented visit to China by President Richard Nixon the following

---

<sup>193</sup> Nixon, *The Memoirs of Richard Nixon*, 347.

<sup>194</sup> Gerald R. Ford, *A Time to Heal: The Autobiography of Gerald R. Ford* (New York: Harper & Row, 1979), 128.

<sup>195</sup> “...China and the United States cannot tolerate having a situation develop in which we are enemies, any more than we want to be permanent enemies of the Soviet Union. Therefore, we expect to make moves in trade and exchanges of persons and eventually in diplomacy...within ten years, China will be a nuclear power, capable of terrorizing many other countries. The time is running out when the Soviet Union and the United States can build a different kind of world” (Richard Nixon to Soviet Ambassador Anatoly Dobrynin, 1969). Richard Nixon, *The Memoirs of Richard Nixon*, 406.

<sup>196</sup> CIA, “Détente and US-Soviet Trade,” 7 March 1972, 2.

year, Nixon was also in the process of preparing for a summit meeting in Moscow.<sup>197</sup>

Nixon made his historic trip to China in February 1972, marking the first direct contact between the heads of the two states in twenty years, and then he visited Moscow in May. That 1972 summit meeting between the U.S. and the U.S.S.R. resulted in agreements that encouraged the expansion of trade and cooperation in science and technology. According to a Congressional report, these agreements:

represented a significant departure from other cooperative agreements between these two countries. Most notably, they initiated agreements for joint research and development in a wide range of scientific and technological activities. Some of the areas include cooperative research and development in atomic energy, science and technology including computer management and high-energy physics, space, and ocean studies.<sup>198</sup>

The agreements that resulted from this summit meeting called for cooperative research and development in the fields of agriculture, atomic energy, energy, environmental protection, housing, medical science and public health, oceans, science and technology, space and transportation. These agreements called for cooperative activities such as:

- Exchange of scientists and specialists;
- Exchange of scientific and technical information and documentation;
- Joint development and implementation of programs and projects in the fields of basic and applied sciences;
- Joint research, development, and testing and exchange of research results and experience between scientific research institutions and organizations;
- Organization of joint courses, conferences and symposia;
- Rendering of help, as appropriate, on both sides in establishing contacts and arrangements between United States firms and Soviet enterprises where a mutual interest develops; and

---

<sup>197</sup> Nixon, *The Memoirs of Richard Nixon*, 497.

<sup>198</sup> Nixon, *The Memoirs of Richard Nixon*, 618; Congressional Research Service, Library of Congress, *Technology Transfer and Scientific Cooperation Between the United States and the Soviet Union*, xi, 5.

- Other forms of scientific and technical cooperation as may be mutually agreed.<sup>199</sup>

Thus, just as the leader of the United States connected with the leader of China in the first high-level interaction after twenty years of very limited and restricted contact, the U.S. and the U.S.S.R. further strengthened their already strong trade relationship and deepened their cooperation in the most advanced fields of science and technology.

The U.S. was not the first Western country to enter into science and technology cooperation agreements with the U.S.S.R. The Soviet Union entered into science and technology agreements with France and Italy in 1966, with the United Kingdom in 1968, with Sweden in 1970, and with Canada in 1971. After entering into the agreements with the U.S. in 1972, the Soviet Union entered into science and technology cooperation agreements with Japan and West Germany in 1973. The common goal of all of these agreements “was to complement and encourage commercial contacts” for the benefit of the Soviet Union.<sup>200</sup>

But the U.S. had become the leader in the world in certain fields of technology by the end of the 1960s. Professor Ronald E. Hoyt noted that “By the end of the 1960s, the United States had gained *a clearcut superiority* [emphasis added] in space

---

<sup>199</sup> Congressional Research Service, Library of Congress, *Technology Transfer and Scientific Cooperation Between the United States and the Soviet Union*, xi, 8.

<sup>200</sup> Congressional Research Service, Library of Congress, *Technology Transfer and Scientific Cooperation Between the United States and the Soviet Union*, 79.

technology, which included computer hardware and software, rocket guidance systems, space communications, and applied satellite technology.”<sup>201</sup>

The CIA noted in 1972 that the Soviet Union considered American equipment in certain technology segments to be superior to the equipment available from the rest of the world:

The bulk of Soviet imports would be in the machinery and equipment category. The USSR has indicated a long list of expensive capital equipment it desires from the West—automotive manufacturing, deep well drilling, automatic oil transfer and storage, oil refining, rolling mill, off-the-road vehicles, computers, instruments, data transmission, and numerically controlled machine tools—and *it considers the US equipment and technology for many of these categories superior to all others* [emphasis added].<sup>202</sup>

The CIA also pointed out that “The USSR can buy most industrial and agricultural products in other western countries, but some kinds of machinery, some licenses, and some agricultural products (feed grains and concentrates in the quantities desired) *can be purchased only from the US* [emphasis added].”<sup>203</sup> A 1974 CIA report noted that “The removal of export restrictions on this equipment has given the USSR *specialized machinery and technology that was not available elsewhere* [emphasis added] and that the USSR had sought for years.”<sup>204</sup> This report provided

---

<sup>201</sup> Ronald E. Hoyt, *Winners and Losers in East-West Trade: A Behavioral Analysis of U.S.-Soviet Détente (1970-1980)* (New York: Praeger, 1983), v.

<sup>202</sup> CIA, “Détente and US-Soviet Trade,” 7 March 1972, 3-4.

<sup>203</sup> CIA, “The Soviet Economy as a Factor in US-Soviet Political Relations,” 7 March 1972, CIA, [http://www.foia.cia.gov/sites/default/files/document\\_conversions/89801/DOC\\_0000307809.pdf](http://www.foia.cia.gov/sites/default/files/document_conversions/89801/DOC_0000307809.pdf) (accessed September 26, 2013), 6.

<sup>204</sup> CIA, “Soviet Economic and Technological Benefits from Détente,” Intelligence Report, February 1974, ER IR 74-2, [http://www.foia.cia.gov/sites/default/files/document\\_conversions/89801/DOC\\_0000380725.pdf](http://www.foia.cia.gov/sites/default/files/document_conversions/89801/DOC_0000380725.pdf) (accessed September 26, 2013).



details on the specific superior American technologies that were sought by the U.S.S.R.:

The machinery and equipment that the USSR has sought especially in the United States include truck-manufacturing equipment, computers, and certain other electronics equipment, as well as various types of oil and gas field equipment. *These are areas in which US technology excels.*

Other...purchases include gear-making machinery, automated transfer machinery, and computer-controlled conveyor systems, all of which, for reasons of durability, precision, or productivity, *are technologically superior to systems in Western Europe.*

Also in the energy area, the United States *clearly excels* in cryogenic technology, which is necessary for the operation of superconducting magnets and transmission lines, and in the pollution control and heat transfer technology associated with conventional thermal powerplants. And in all the cooperative areas, those aspects of the work involving sophisticated instrumentation and automated control represent a potential boon to the Soviets, *again because of the clear lead that the United States has in these technologies.*

*US companies are the preferred sources* of automotive equipment, oil field equipment, both computer hardware and software, and civilian aircraft technology. In other areas, such as oil field equipment for Arctic exploration, *the United States is the only technology source in the eyes of the Soviets.*<sup>205</sup>

Trade and technology cooperation between the United States and the Soviet Bloc were already strong when American trade with China just began to break free from forty years of embargo in the early 1970s. Imports to the U.S. from China reached \$4.9 million in 1971, with no exports that year from the U.S. to China, compared to \$223.0 million in imports to the U.S. from the Soviet Bloc and \$384.2

---

<sup>205</sup> CIA, "Soviet Economic and Technological Benefits from Détente," 6, 21; emphasis added.

million in exports from the U.S. to the Soviet Bloc.<sup>206</sup> Exports from the U.S. to the Soviet Bloc rose to \$987 million in 1972, more than doubling the level of 1971, as shown in the following chart:<sup>207</sup>

1972 Imports from the U.S.	
Bulgaria	3
Czechoslovakia	49
East Germany	15
Hungary	23
Poland	112
Romania	69
Yugoslavia	169
USSR	547
TOTAL	987
(\$ million USD)	

(From *Business Europe*, "Eastern Europe at a Glance," XIV, no. 5, JA-74 (February 1, 1974): 37)

American technology transfer to the Soviet Bloc increased significantly during the 1970s. American companies that possessed advanced technology actively pursued cooperation agreements in the Soviet Bloc and provided licenses to their technology. The Soviet Bloc realized by the late 1960s that most of the technology that they wanted was the property of individual American companies, rather than the property of state enterprises as in socialist economies.<sup>208</sup> Individual American companies were encouraged to enter into technological cooperation agreements with the Soviet State Committee for Science and Technology. While these were not

<sup>206</sup> Gale Cengage Learning, "International Economic Issues: 1973 in Review, 1974 in Perspective, International Economic Affairs Department, NAM," *Administrative Files: Associations, Councils, Etc.: National Association of Animal Breeders, National Association of Manufacturers (1)-(2)*, N.d., NCUSCT, [http://go.galegroup.com/gdsc/i.do?&id=GALE%7CSC5102024014&v=2.1&u=acd\\_gdsc&it=r&p=GDSC&sw=w&viewtype=fullcitation](http://go.galegroup.com/gdsc/i.do?&id=GALE%7CSC5102024014&v=2.1&u=acd_gdsc&it=r&p=GDSC&sw=w&viewtype=fullcitation) (accessed October 21, 2012).

<sup>207</sup> *Business Europe*, "Eastern Europe at a Glance," XIV, no. 5, JA-74 (February 1, 1974): 37.

<sup>208</sup> CIA, "Soviet Economic and Technological Benefits from Détente," 17.

commercial contracts, they often led “to specific implementing contracts for commercial transfers of technology.”<sup>209</sup> Failure to enter into such agreements if invited to do so by the Soviet government was understood to be a potential barrier to business opportunities in the Soviet Union. In 1973, seventeen companies from across Western Europe and five American companies had entered into joint research and development agreements with the State Committee for Science and Technology.<sup>210</sup> By 1974, twenty-three American companies were confirmed by the CIA to have had entered into such scientific and technical cooperation agreements:

American Can Company	High-speed can manufacturing
Armco International	Ferrous metallurgy, offshore oil
Arthur Anderson and Company	Accounting, information systems
BASF Wyandotte Corporation	Various fields in chemistry
Bechtel Corporation	Heavy industry, energy
Brown and Root, Inc.	Various fields of science and technology
Control Data Corporation	Advanced computer equipment
Dresser Industries,	Petroleum wells, oilfields products
American Petroleum Service Division	
Food Machinery Corporation	Farm machinery, agro-industry, mining
General Dynamics Corporation	Telecommunications, computers, aircraft, ships and shipbuilding, navigation
General Electric	Power generation
Hewlett-Packard	Computers, electronic equipment
International Telephone and Telegraph (ITT)	Telecommunications, components
Joy Manufacturing Company	Mining machinery
Litton Industries	Electronics, chemicals, machine building
Monsanto Company	Chemical industry, rubber
Occidental Petroleum	Oil & gas, agriculture, metallurgy
Singer Company	Computers, household appliances, cash registers, navigation equipment
Stanford Research Institute	International business opportunities

---

<sup>209</sup> Congressional Research Service, Library of Congress, *Technology Transfer and Scientific Cooperation Between the United States and the Soviet Union*, 64.

<sup>210</sup> *Business Europe*, “The Value of R&D Agreements With the Soviet Union,” XIII, no. 39, JA-73 (September 28, 1973): 306.

Kaiser Industries	Alumina-aluminum, iron ore, metal products
Lockheed	Navigation systems, civil aircraft construction, air traffic control systems, oceanographic apparatus <sup>211</sup>

By 1976, fifty-three American companies had entered into such agreements. A 1977 Congressional study observed, “It often appears that the ‘Americanists’ among the Soviet elite...tend to assume uncritically that if it is American it is best.”<sup>212</sup>

Soviet Bloc nations also bought licenses to enable them to utilize specific American technologies. In 1975-1976, Hungary bought licenses from eleven countries including the United States. The technologies acquired in this manner from the U.S. gave Hungarian firms access to American technology in earth cultivators, computer information units, maize and corn production, shoe production, and concrete processing.<sup>213</sup> The government of Hungary released a plan in late 1977 to double its purchases of licenses for Western technology from a volume of \$25 million USD in 1977 to at least \$50 million in 1978 “in order to speed up industrial modernization and restructuring.”<sup>214</sup>

The World Trade Institute of the Soviet Academy of Science reported that Poland purchased 310 licenses at a cost of \$500 million between 1971-1975, compared to 136 licenses between 1966-1970. The report stated that Czechoslovakia purchased licenses for Western technology at a total cost of \$320 million between

---

<sup>211</sup> CIA, “Soviet Economic and Technological Benefits from Détente,” 34.

<sup>212</sup> Congressional Research Service, Library of Congress, *Technology Transfer and Scientific Cooperation Between the United States and the Soviet Union*, 64, 94.

<sup>213</sup> *Business Eastern Europe*, “Hungary Seeks Improvements in License Buying,” 6, no. 36 (September 9, 1977): 283.

<sup>214</sup> *Business Eastern Europe*, “Hungary to Double License Purchases in the West,” 7, no. 2 (January 13, 1978): 9.

1968 and 1974.<sup>215</sup> Czechoslovakia bought 41 licenses from Western firms in 1976, bringing their total to 300 various licenses from Western companies. Included in this portfolio were licenses from American firms, including Air Products for benzene, Allied Chemical for nylon, and Amtel for ethylene oxide.<sup>216</sup>

The German Democratic Republic took a different approach to attracting American trade and technology. The GDR launched a week of “Economic and Technical Days” in May 1978, in New York, Los Angeles, and Chicago to increase trade with American firms. Nine hundred American visitors attended from the industrial, banking, and scientific communities, including David Rockefeller from Chase Manhattan Bank, Zoltan Merszei of Dow Chemical, and other heads of American corporations. U.S. Trade Minister Frank A. Weil also participated. RCA and Philipp Brothers were reported to have “agreed in principle to participate in large-scale GDR projects” as a result of their interaction in this exhibition.<sup>217</sup>

The breadth and depth of the trade in technology that developed in the 1970s between the U.S. and the Soviet Bloc was illustrated by a listing of the “U.S. Government Trade Specialists for EE” [eastern Europe] in the December 23, 1977, issue of the trade journal *Business Eastern Europe*. A staff of twenty-two economists and “business counselors” in the Department of Commerce provided coverage for the Soviet Bloc. “Area Specialists” were assigned to the countries of Albania/Bulgaria, Czechoslovakia, the German Democratic Republic, Hungary, Poland, and Romania.

---

<sup>215</sup> *Business Eastern Europe*, “License Buying to Reach \$800 Million in 1980,” 6, no. 6 (February 11, 1977): 44.

<sup>216</sup> *Business Eastern Europe*, “Czechoslovak License-Buying on the Increase,” 6, no. 22 (June 3, 1977): 172.

<sup>217</sup> *Business Eastern Europe*, “Eastern Europe in Brief,” 7, no. 21, (May 26, 1978): 166.

Six area specialists were assigned to the USSR alone, with individuals assigned responsibility for five different groups of trade issues: “Shipping, aviation, tourism, technology transfer,” “Agriculture, mineral resources,” “Bilateral relations, business facilitation,” “Energy, industries, economic plans, foreign trade,” and “Finance, Comecon: compensation arrangements, customs and tariffs.”<sup>218</sup> Five technology sectors were identified for Eastern Europe with a “Trade Development Assistance Officer” assigned to each one:

Capital equipment, machine tools, food processing and packaging, environmental protection

Chemicals, petrochemicals, pharmaceuticals, forest products, medical and laboratory equipment, textile equipment, refinery and chemical plant equipment

Construction, mining, metallurgical, automotive, materials handling equipment

Electronics, telecommunications, computers, aviation equipment

Financing, technology transfer, contract clauses, trademarks, oil, gas, power<sup>219</sup>

Signaling the presumed importance of trade relations to the success of détente, the U.S. government engaged in activities that promoted trade efforts by American companies in the Soviet Bloc. The U.S. Department of Commerce actively assisted eight U.S. companies in the materials testing field in their efforts to find customers in Eastern Europe. Technical seminars on the companies’ products met with interest in Budapest and Warsaw, and especially in Prague where almost 200 people attended

---

<sup>218</sup> Comecon, or the Council for Mutual Economic Assistance, consisted of the Eastern European countries that were part of the Soviet Bloc.

<sup>219</sup> *Business Eastern Europe*, “US Government Trade Specialists for EE,” (chart), 6, no. 51&52 (December 23, 1977): 406.

the first day of the presentations, including Czech government representatives.

Orders totaling \$1.5 million USD for applications in Czech automobile and truck plants resulted for two of the eight U.S. firms.<sup>220</sup>

Further evidence of the high degree of interest of the U.S. in the late 1970s in sharing technology with the Soviet Union and its Eastern European allies was shown by the schedule of upcoming U.S. trade promotions in Eastern Europe published by the U.S. Department of Commerce in mid-1979. Advanced technology seminars in the fields of electric power, chemical processing, micrographics, and test and measurement equipment were scheduled for Sofia, Prague, Berlin, Bucharest, and Moscow.<sup>221</sup>

#### US TRADE PROMOTIONS AT UPCOMING EE EXHIBITIONS AND SEMINARS

**Technical sales seminar:** June 1979, itinerary: Sofia, Prague, Berlin, Bucharest.

— resource recovery, pollution control and energy-efficient technologies.

**Electric power seminar:** June 4-8, 1979, Moscow.

— microelectric control technology, protective, switching and measuring equipment for high-voltage power transmission lines, superconductors, solar and wind energy converters, MHD generators, reclosers.

**Chemical processing seminar:** Sept. 10-14, 1979, Moscow.

— drying equipment, heating and cooling equipment, filtration and separation methods, processing, mixing and blending machinery, size reduction and agglomeration equipment, liquid, air and gas handling systems, materials handling, storage and packaging systems, control and measuring instruments.

**Micrographics seminar:** Sept. 24-28, 1979, Moscow.

— computerized information retrieval and micro-film systems and auxiliary products.

**Technoexpo '79:** Oct. 4-13, 1979, Bucharest.

— penetrometers, hardness-testing equipment, thrust power indicators, ultrasonic testing equipment, vibration meters, analyzers and calibrators, stress, strain and flow detecting and measuring equipment, modern methods and equipment to determine the reliability of large production lines of measuring and control apparatus, control and testing apparatus for gears and threads, digital display check gauges, tensiometers, digital and analog programming instruments for dose weighing, density measuring apparatus, viscosity meters, composition measuring instruments, mass spectrometers, ultrasonic inspection/testing equipment, industrial X-ray equipment, total quality control systems, accelerometers.

US companies wishing to participate should contact:  
**US:** Jim Robb, Room 4821, US Department of Commerce, Washington, D.C. 20230; tel: 202/377-4810.

**Europe:** Henning Vontillius, Director, USEWTD SO, 2 Friedrich Schmidt Platz, A-1010 Vienna, Austria; tel: 432-115; telex: 76103.

(From *Business Eastern Europe*, "US Trade Promotions at Upcoming EE Exhibitions and Seminars," 8, no. 16, (April 20, 1979): 124)

<sup>220</sup> *Business Eastern Europe*, "Group Seminar in Prague Reaps Orders for US Firms," 7, no. 20 (May 19, 1978): 154-155.

<sup>221</sup> *Business Eastern Europe*, "US Trade Promotions at Upcoming EE Exhibitions and Seminars," 8, no. 16, (April 20, 1979): 124.

Though the Soviet Union acquired American technology through technology cooperation agreements, direct trade, and clandestinely through its East European allies, it did not allow joint ventures in the U.S.S.R. during the 1970s. The dispersion and diffusion of American technology in the Soviet Union suffered as a result of its prohibitions on joint ventures.

Yugoslavia legalized joint ventures in 1967.<sup>222</sup> Romania legalized joint ventures with Western firms in 1971, and Hungary followed in 1972.<sup>223</sup> As reported elsewhere in this thesis, China studied the experiences of these three countries as it prepared to launch its reforms regarding joint ventures in 1979. Even though the U.S.S.R. suggested at different times that joint ventures would be permitted at some point, the Soviet Union did not allow joint ventures with U.S. and other Western firms during the 1970s.<sup>224</sup>

The Soviet Union began expanding their use of “compensation agreements” in 1973 whereby Western suppliers of equipment would be paid through the revenue generated by exports. Alternatively, the Soviet Union paid suppliers of equipment with the actual goods produced on the equipment. These agreements were not attractive to all suppliers because of concerns over the quality of the goods to be

---

<sup>222</sup> *Business Eastern Europe*, “Yugoslav Joint-Venture Law Expected Soon,” 6, no. 42 October 21, 1977: 330-331.

<sup>223</sup> Harold J. Berman, “Joint Ventures Between United States Firms and Soviet Economic Organizations,” *Maryland Journal of International Law* 1, no. 2 (1976): 148.

<sup>224</sup> See notes 40 and 41 in CIA, “Soviet Economic and Technological Benefits from Détente,” 13-14; Berman, “Joint Ventures Between United States Firms and Soviet Economic Organizations,” 139, 141.



made by the Soviet producers.<sup>225</sup> The U.S.S.R. also established “cooperative ventures” in which U.S. companies provided “advanced equipment, technology, and know-how.” For example, Occidental Petroleum entered into a 20-year, \$8 billion project with the Soviet Union to manufacture fertilizers.<sup>226</sup> According to Harvard Law Professor and expert in Soviet law, Harold J. Berman:

With respect to the interdependence of the parties, the present typical form of close cooperation between the Soviet Union and a Western firm, the so-called industrial cooperation agreement (ICA), falls between the full joint venture on the one hand and the typical export-import contract on the other. Soviet export-import contracts are generally specific, short-term agreements for the purchase and sale of goods. ICAs appear in a variety of forms, including, for example, licensing and subcontracting contracts. Generally, an ICA involves an exchange of capital and technology from the West for goods and services from the socialist partner; ICAs do not, however, provide for Western input to the Soviet management process. In the joint venture, Western management skills are included in the package of Western contributions.<sup>227</sup>

ICAs were not the most effective means for successfully transferring technology. Scholars have pointed out that joint ventures are a superior form of investment for both Western technology providers and their partners because joint ventures facilitate close and prolonged interactions between the foreign technologists and the recipient clients and they establish a shared objective of successful utilization of the technology.<sup>228</sup> The CIA noted that technology transfer and diffusion in the

---

<sup>225</sup> Joint Economic Committee, *Soviet Economy in a New Perspective: A Compendium of Papers, October 14, 1976*, Joint Economic Committee of the Congress of the United States, 94<sup>th</sup> Cong., 2<sup>nd</sup> sess., 1976, 719.

<sup>226</sup> CIA, “Soviet Economic and Technological Benefits from Détente,” 10, 19.

<sup>227</sup> Berman, “Joint Ventures Between United States Firms and Soviet Economic Organizations,” n9, 141-142.

<sup>228</sup> James F. Pedersen, “Joint Ventures in the Soviet Union: A Legal and Economic Perspective,” *Harvard International Law Journal* 16 (1975): 395-396; Hoyt, *Winners and Losers in East-West Trade*, 46.

Soviet Union was hampered by excessive secrecy on the part of Soviets regarding where and how equipment would be configured and used, incompatibility between different types of equipment in installations, and lack of expertise in the operation of imported equipment.<sup>229</sup> All these problems could possibly have been lessened if the suppliers of the imported equipment had been permitted to establish joint ventures whereby they would provide set-up and operational knowledge on an on-going basis to the enterprise, problem-solving skills in the running and maintenance of the equipment, upgrades to the technology as they became available, and other elements of managerial expertise.

Despite the limitations on joint ventures and other forms of FDI in the Soviet Union itself, the importation of Western technology played a significant role in the Soviet economy. The Chairman of the Soviet Council of Ministers Alexei Kosygin “stressed the critical role of Western technology in improved Soviet economic performance” in February 1976 before the meeting of the 25<sup>th</sup> Congress of the Communist Party of the Soviet Union. Western technology particularly benefitted Soviet industrial production. U.S. exports to the U.S.S.R of machinery and equipment increased by over ten times during the five year period between 1970 and 1975, growing from under \$50 million in 1970 to \$547 million in 1975.<sup>230</sup>

U.S. exports to the Soviet Bloc totaled almost \$4.15 billion in 1978, more than quadrupling the level of 1972.<sup>231</sup>

---

<sup>229</sup> CIA, “Soviet Economic and Technological Benefits from Détente,” 23-27.

<sup>230</sup> Congressional Research Service, Library of Congress, *Technology Transfer and Scientific Cooperation Between the United States and the Soviet Union*, 77-78, 81.

<sup>231</sup> *Business Eastern Europe*, “Trade of Major Western Suppliers with Eastern Europe-Part III,” 6, no. 21 (May 27, 1977): 164; *Business Eastern Europe*, “Trade of

	Imports from the U.S. (\$ million USD)			
	1975	1976	1977	1978
Albania	1	1	NA	NA
Bulgaria	30	43	24	48
Czechoslovakia	53	149	74.4	105.6
East Germany (GDR)	17	65	36	170.4
Hungary	76	63	80.4	98.4
Poland	583	623	439.2	680.4
Romania	191	250	260.4	319.2
Yugoslavia	328	298	356.4	475.2
USSR	1837	2308	1627.2	2252.4
TOTAL	3116	3800	2898	4149.6

(From *Business Eastern Europe*, "Trade of Major Western Suppliers with Eastern Europe-Part III," 6, no. 21 (May 27, 1977): 164; *Business Eastern Europe*, "Trade of Major Western Suppliers with Eastern Europe-Part I," 7, no. 21 (May 26, 1978): 164; *Business Eastern Europe*, "Trade of Major Western Suppliers with Eastern Europe-Part I," 8, no. 28 (July 13, 1979): 220)

Throughout the period of détente and afterwards, the U.S. government and intelligence services were concerned about the use of advanced American technology in Soviet military applications.<sup>232</sup> The Coordinating Committee for Multilateral Export Controls (COCOM) restrictions on the exportation of certain technologies and many types of products were significantly relaxed to encourage trade, but certain "strategic" technologies remained restricted in order to prevent their use in Soviet military applications. However, to evade the public scrutiny and political consequences of directly acquiring certain technologies from the U.S., the U.S.S.R. acquired technology from its Eastern European allies, to whom the transfer from the U.S. was less sensitive. For example, the CIA reported in early 1974 that "in the past

---

Major Western Suppliers with Eastern Europe-Part I," 7, no. 21 (May 26, 1978): 164; *Business Eastern Europe*, "Trade of Major Western Suppliers with Eastern Europe-Part I," 8, no. 28 (July 13, 1979): 220.

<sup>232</sup> See particularly J. Fred Bucy, "On Strategic Technology Transfer to the Soviet Union," *International Security* 1, no. 4 (Spring, 1977): 25-43, called "the Bucy report."

year at least two third-generation computers were directed from their intended end uses in two East European countries to unknown activities within the Soviet Union.” “Third generation” computers were particularly desirable to the Soviet Union because of their applicability to the modernization of both military and non-military applications.<sup>233</sup>

Czechoslovakia entered into agreements with the Soviet Union in 1972, 1974, 1975, and 1976 to share technology and scientific information. Therefore, it must be assumed that any Western technology acquired by Czechoslovakia was shared with the Soviet Union.<sup>234</sup> The CIA reported in 1974 that, although the U.S.S.R. had not sought to directly acquire politically-sensitive state-of-the-art semiconductor

---

<sup>233</sup> CIA, “Soviet Economic and Technological Benefits from Détente,” i, 2-3.

<sup>234</sup> Wilson Center, “Record of Discussion and Text of Coordination Plan on Operative Technology from the Summer of 1972 Through 1974, Reached by the Committee of State Security (KGB) of the USSR and the Czechoslovak Ministry of the Interior,” July 14, 1972, Document Summary, Wilson Center Digital Archive: International History Declassified, <http://digitalarchive.wilsoncenter.org/document/113486> (accessed September 20, 2013); Wilson Center, “Protocol on Exchange of Employees and Information in the Scientific, Technical and Security Fields for the Year 1974,” February 11, 1974, Document Summary, Wilson Center Digital Archive: International History Declassified, <http://digitalarchive.wilsoncenter.org/document/113561> (accessed September 20, 2013); Wilson Center, “Protocol on Steps to Increase Coordination Between the Czechoslovak Ministry of the Interior and the Soviet Ministry of the Interior in 1975,” January 22, 1975, Document Summary, Wilson Center Digital Archive: International History Declassified, <http://digitalarchive.wilsoncenter.org/document/113491> (accessed September 20, 2013); Wilson Center, “Protocol on Cooperation Between the Interior Ministries of the Czechoslovak Socialist Republic and the Soviet Union in 1976,” January 23, 1976, Document Summary, Wilson Center Digital Archive: International History Declassified, <http://digitalarchive.wilsoncenter.org/document/113505> (accessed September 21, 2013); Wilson Center, “Agreement Between the Czechoslovak and Soviet Ministries of the Interior on Cooperation From the Summer of 1976 until 1980,” June 04, 1976, Document Summary, Wilson Center Digital Archive: International History Declassified, <http://digitalarchive.wilsoncenter.org/document/113304> (accessed September 21, 2013).

manufacturing technology from the U.S., “technical knowledge and finished devices could be furnished to the USSR from Poland and other East European countries under special agreements for mutual cooperation in semiconductor R&D.” The CIA expressed its concern that “Polish acquisition of this technology would make it possible for the USSR to acquire this knowledge and could significantly enhance its production capabilities over the long term, particularly in areas of strategic concern.”<sup>235</sup> “Strategic” in this context meant *military*. Similar technology-sharing agreements may have been executed between other Eastern European countries and the Soviet Union.

Though it continued to lag behind the strategic technological capabilities of the United States, the military strength of the Soviet Union increased as a result of the transfer of American advanced technology during the 1970s. The Soviet Union acquired American advanced technology through the direct, legitimate trade that was encouraged by détente, as well as through illicit means, including dual-use technologies that were useful for both industrial and consumer products as well as for military systems. And as Georges Sokoloff confirmed in his very helpful study *The Economy of Détente*, even the imports of advanced technology products from the U.S. that had no direct military application served as “resource liberators” that freed Soviet domestic industrial capacity to be utilized for military purposes.<sup>236</sup> Admiral Bobby R. Inman testified at a Senate hearing in May 1982 after the era of détente ended that of the “militarily useful, militarily related technology which the Soviets have acquired

---

<sup>235</sup> CIA, “Soviet Economic and Technological Benefits from Détente,” 3.

<sup>236</sup> Georges Sokoloff, *The Economy of Détente: The Soviet Union and Western Capital*, trans. Jean Kirby (New York: Berg, 1987), 54-58.

from the West, about 70% of these acquisitions have been accomplished by the Soviet and East European intelligence services, using clandestine, technical, and overt collection operations.”<sup>237</sup> Senator William Roth of Delaware summed up the concerns of many in the defense community when he stated, “There is no question that the Soviets have undertaken a massive, well-financed, expertly coordinated program to systematically acquire as much as [sic] our high technology as they can steal, purchase through middlemen or otherwise appropriate...to advance their numerous weapons systems and overall military capabilities.”<sup>238</sup>

Because of the direct threat that advances in Soviet military capability posed to China during the 1970s, I argue that China saw the ongoing technology transfer from the U.S. to the U.S.S.R. as a threat. I believe the Chinese reformers wanted to pull American technology to China through its joint venture law in 1979 in response to this threat.

### **U.S.-U.S.S.R. Trade versus U.S.-China Trade**

In order to attempt to understand the Chinese perspective regarding trade and technology transfer with the U.S. in the late 1970s, it is important to see how trade developed after China and the U.S. resumed trade relations in 1971. In stark contrast to the strong U.S. trade and technology exchange relationship with the U.S.S.R., trade was virtually nonexistent in the early 1970s between the United States and China.

---

<sup>237</sup> Prepared Statement of Admiral Bobby R. Inman,” Committee on Governmental Affairs, Permanent Subcommittee on Investigations, *Transfer of United States High Technology to the Soviet Union and Soviet Bloc Nations*, 97<sup>th</sup> Cong., 2<sup>nd</sup> sess., 1982, 577.

<sup>238</sup> *Transfer of United States High Technology to the Soviet Union and Soviet Bloc Nations*, 97<sup>th</sup> Cong., 2<sup>nd</sup> sess., 1982, 1.

Though the U.S. reached out to China, American trade with China developed very slowly. American firms were far more convinced that trade would boom during the coming decade with the Soviet Union than with China in the early 1970s. For example, an article in early 1972 in the *New York Times* about a news conference held by Secretary of Commerce Maurice Stans underscored the advanced nature of U.S.-U.S.S.R. trade compared to trade with China:

Some expansion in trade may result from the President's trip to Peking, but commerce between China and the United States is likely to develop 'at a much slower rate' than with the Soviet Union... "After all... we are already doing business with the Soviets—about \$150 million each way last year—and the Soviets have indicated a desire to buy American."<sup>239</sup>

Senior Chinese officials were very aware of American business activities in the Soviet Union in the early 1970s. For example, in a meeting in New York on July 26, 1972, Henry Kissinger spoke to Chinese Ambassador to the United Nations Huang Hua about the interest by the Soviet Union in “a large-scale American investment in Siberia” for natural gas development, which Kissinger explained would be handled by “private companies.” Kissinger offered, “The U.S. is prepared—I have said this before—to put the PRC on the exact same footing as the Soviet Union. So anything we do for the Soviets, that opportunity remains for the PRC.” The record of this meeting shows that Ambassador Huang chose to not respond to this opportunity.<sup>240</sup> Under Secretary of State for Economic Affairs William Casey referred to this same opportunity for two American companies to invest in a venture

---

<sup>239</sup> Richard Phalon, “Stans Sees Slow Growth in China Trade,” *New York Times*, February 3, 1972.

<sup>240</sup> U.S. Department of State, *Foreign Relations of the United States, 1969-1976*, Volume XVII, “China 1969-1972” (Washington, DC: GPO, 2006), 1029-1030.

to develop natural gas fields in Siberia in his remarks to the National Council for U.S.-China Trade (“NCUSCT”) in 1973 prior to the NCUSCT’s first trip to China. This is an example of how technology cooperation between the U.S. and the U.S.S.R. was both ahead of such activities in China and visible to the American council that was trying to develop similar opportunities in China.<sup>241</sup>

Secretary of Commerce Frederick B. Dent addressed the NCUSCT in its inaugural executive conference on March 22, 1973. The memorandum summarizing his remarks highlights the contrast in the status of trade in 1973 with these two countries, and confirms the visibility of U.S.-Soviet trade ties to the NCUSCT: “Re opening up new markets exports to the USSR have tripled and imports doubled. The \$450 million surplus with the USSR is the largest we have with any country,” but, “With regard to China, initial trade won’t be easy, but the odds are good.”<sup>242</sup>

Trade with the Soviet Union and the Soviet Bloc was the primary focus of “East-West Trade” in the mid-1970s. The National Association of Manufacturers (NAM) concentrated its international affairs activities on trade with the Soviet Union. NAM sponsored a major conference in February 1973 that included over 800 senior business leaders as well as Soviet and American government officials, and E. Douglas

---

<sup>241</sup> Gale Cengage Learning, “Memorandum, No Date, Christopher Phillips to Members of the 1973 Delegation of the National Council for U.S.-China Trade to China,” *Administrative Files: Subject File, NCUSCT: Historical Files (1)-(6)*, 1970 and 1972, NCUSCT,

[http://go.galegroup.com/gdsc/i.do?&id=GALE%7CSC5102058095&v=2.1&u=acd\\_gdsc&it=r&p=GDSC&sw=w&viewtype=fullcitation](http://go.galegroup.com/gdsc/i.do?&id=GALE%7CSC5102058095&v=2.1&u=acd_gdsc&it=r&p=GDSC&sw=w&viewtype=fullcitation) (accessed October 21, 2012).

<sup>242</sup> Gale Cengage Learning, “National Council on U.S.-China Trade Executive Committee Meeting, March 22, 1973,” *Administrative Files: Subject File, NCUSCT: Historical Files (1)-(6)*, 1970 and 1972, NCUSCT, [http://go.galegroup.com/gdsc/i.do?&id=GALE%7CSC5102058095&v=2.1&u=acd\\_gdsc&it=r&p=GDSC&sw=w&viewtype=fullcitation](http://go.galegroup.com/gdsc/i.do?&id=GALE%7CSC5102058095&v=2.1&u=acd_gdsc&it=r&p=GDSC&sw=w&viewtype=fullcitation) (accessed October 21, 2012).



Kenna, president of NAM, testified to Congress in July 1973 on NAM's vision for greater economic and technical ties with the Soviet Union.<sup>243</sup> *U.S. News and World Report* stated in December 1975 "the U.S. has an enormous web of direct business with Russia now, ranging from efforts to establish limitations on strategic arms to the sale of American grain to Moscow. There is no such web in the Chinese-American relationship..." but "the Chinese are interested in obtaining American technology."<sup>244</sup>

In his address to the NAM's International Trade Committee in February 1976, a representative of the U.S. Department of Commerce highlighted the year-over-year growth of trade with the Soviet Bloc, and mentioned Cuba, Vietnam and North Korea, but made no mention of China.<sup>245</sup> U.S. imports from the Soviet Bloc countries totaled \$866.8 million in 1976, compared to \$201.9 million imported from China. The difference in exports was even greater. 1976 U.S. exports to the Soviet Bloc totaled \$3,494.5 million, compared to only \$135.4 million exported to China.<sup>246</sup>

---

<sup>243</sup> Gale Cengage Learning, "International Economic Issues: 1973 in Review, 1974 in Perspective, International Economic Affairs Department, NAM"; "Testimony of E. Douglas Kenna, President, National Association of Manufacturers, on Expanded Soviet-American Commercial Relations Before the Joint Economic Committee, United States Congress, July 17, 1973," *Administrative Files: Associations, Councils, Etc.: National Association of Animal Breeders, National Association of Manufacturers (1)-(2)*, N.d., NCUSCT, [http://go.galegroup.com/gdsc/i.do?&id=GALE%7CSC510202401&v=2.1&u=acd\\_gdsc&it=r&p=GDSC&sw=w&viewtype=fullcitation](http://go.galegroup.com/gdsc/i.do?&id=GALE%7CSC510202401&v=2.1&u=acd_gdsc&it=r&p=GDSC&sw=w&viewtype=fullcitation) (accessed October 21, 2012).

<sup>244</sup> "Why Ford Went to China," *U.S. News and World Report*, December 8, 1975.

<sup>245</sup> "Highlights of the International Trade Committee Meeting, NAM Board Room, February 11, 1976," Hagley Museum and Library, Accession 1411, National Association of Manufacturers, Series 9, Committee Records, Box 159, Folder: "Originals-Briefing Booklet International Meeting, Nov/76."

<sup>246</sup> "U.S. Trade Relations with the Soviet Union, Eastern European Countries and the People's Republic of China, Source: Twenty-First Annual Report of the President of the United States on the Trade Agreements Program-1976," Hagley Museum and Library, Accession 1411, National Association of Manufacturers, Series 9,

Because China and the Soviet Union were bitter enemies in the 1970s, China saw détente and the transfer of advanced technology from the U.S. to the Soviet Union as a major strategic threat to China's security. Efforts at détente between the U.S. and the Soviet Union were topics of heated discussion between China and the U.S. in the 1970s. President Ford recalled that Zhou Enlai emphasized the Soviet threat when Ford visited China in 1972 and criticized talk in the U.S. of reducing the military budget.<sup>247</sup> According to Ezra Vogel, Deng Xiaoping told Henry Kissinger in October 1975, "The Soviet Union has two weaknesses: it needs grain and technology, and the United States is helping with both, helping resolve its weaknesses and thus increasing the risk of a Soviet attack."<sup>248</sup> Henry Kissinger reported that Deng asked how much technology the U.S. was transferring to the Soviet Union when he met with Deng in October 1975.<sup>249</sup> During President Gerald Ford's December 1975 visit to China, Deng referred to the Soviet Union as "the world's 'most dangerous source of war,'" and said, "Rhetoric about détente cannot cover up the stark reality of the growing danger of war."<sup>250</sup>

China and the Soviet Union were bitter rivals in the 1970s. China leaned toward the U.S. in order to build an alliance against its militarily superior enemy at its border.<sup>251</sup> Despite active technology cooperation between the U.S. and the Soviet

---

Committee Records, Box 159, Folder: "October 19, 1977 International Trade Subcommittee Meeting, Tab: East West Trade."

<sup>247</sup> Ford, *A Time to Heal*, 98.

<sup>248</sup> Vogel, *Deng Xiaoping and the Transformation of China*, 153.

<sup>249</sup> Kissinger, *Years of Renewal*, 878.

<sup>250</sup> "Now, Ford's Long March," *Newsweek*, United States Edition, National Affairs, December 15, 1975.

<sup>251</sup> For a detailed explanation see Michael B. Yahuda, "The Significance of Tripolarity in China's Policy Toward the United States Since 1972," in *China, the*

Bloc, the U.S. possessed technology that was superior to that of the Soviet Union, particularly strategic technology that was essential to military superiority. A 1977 Congressional study quoted an American scientist who reported, “The Soviet Union is far behind the United States in technology. In space technology, in semiconductor devices, in precision machinery, in integrated circuitry and other electronics, computers in high technology which plays [sic] such an important part in modern warfare, we are far ahead of the Soviet Union.”<sup>252</sup> Deng Xiaoping felt that attempts at détente by the U.S. were both naive and dangerous; the evidence suggests that he sensed that the U.S.S.R. was increasingly gaining a technological advantage through American technology that it could deploy against China.

The evidence also suggests that China’s joint venture law in 1979 was influenced by China’s need to strengthen American commitment toward China. Deng wanted the U.S. to closely align its interests with China’s, and deeper economic cooperation and, in particular, technology transfer through joint ventures and FDI would provide vital linkages between the two nations. The evidence shows that Deng felt strongly that China needed advanced technology to modernize its defense and to prepare for China’s survival in the coming war with the Soviet Union that Deng thought was inevitable. The U.S. was the source of the advanced technology that China needed, and the quickest and most effective way to obtain it would be through opening China’s door to U.S. direct investments, including joint ventures. I argue that China’s 1979 joint venture law was likely influenced by its urgent need to specifically attract

---

*United States, and the Soviet Union: Tripolarity and Policy Making in the Cold War* (Armonk, NY: M.E. Sharpe, 1993), 11-37.

<sup>252</sup> Congressional Research Service, Library of Congress, *Technology Transfer and Scientific Cooperation Between the United States and the Soviet Union*, 31.

American technology to China in order to significantly strengthen its national security.

## Chapter 4: Direct Contact Between the United States and China

The United States continued diplomatic relations with Taiwan as the legitimate government of China when the Chinese Communist Party won control of mainland China in 1949 after the Communist Revolution, and the U.S. refused to officially recognize the PRC. After the Geneva Conference in 1954, communications between the United States and the PRC occurred via meetings from time to time in Poland and later through contacts in Romania, Pakistan, and France.<sup>253</sup> Other contacts between Americans and Chinese occurred from time to time outside the U.S. or China. For example, scholars Phillip Donald Grub and Jian Hai Lin report that China used trade fairs in Eastern Europe in the late 1960s to gather intelligence about American and European equipment. Grub and Lin report that Chinese intelligence gathering came in contact with American representatives in Eastern Europe even more directly, citing two of what probably were many such experiences:

In 1968, at the Budapest trade fair, five management and technical experts from the China exhibit team sat in on the seminars given by a U.S. business team that focused on managerial, production, and marketing techniques, as well as technology transfers. A similar group participated in the seminars given at the autumn fair in Bucharest, Romania, in 1970.<sup>254</sup>

---

<sup>253</sup> Kissinger, *White House Years*, 685-704; Kissinger, *On China*, 158-160, 221, 225; Margaret Macmillan, *Nixon and Mao: The Week That Changed the World* (New York: Random House, 2007), 164-165, 172-176; Nixon, *The Memoirs of Richard Nixon*, 545-552.

<sup>254</sup> Grub and Lin, *Foreign Direct Investment in China*, 12.

President Richard Nixon offered in 1967 that the American position toward China should be reoriented “to pull China back into the family of nations.”<sup>255</sup> Long-standing restrictions against travel to China were eased in 1970, and President Nixon sharply reduced restrictions on trade in 1971. Trade officially resumed between the two countries on June 10, 1971.<sup>256</sup>

President Nixon personally visited China in February 1972, thereby opening the door to the resumption of official relations between the U.S. and China. Trade restrictions were relaxed further at the time of Nixon’s visit, so that the controls regarding trade with China were made to be the same as the controls regarding trade with the Soviet Union in February 1972. According to the *Business Asia* journal, the first direct sale by an American company to the People’s Republic of China occurred because of President Nixon’s visit to China. RCA sold USD \$2.9 million worth of satellite communications equipment to the China National Machinery Import and Export Corporation so that images and news reports about Nixon’s visit could be broadcast from China.<sup>257</sup>

China invited forty American businesspeople to attend the Canton Fair in China in April and May 1972, which was the first time American businesspeople

---

<sup>255</sup> Nixon, “Asia after Viet Nam,” 121-122.

<sup>256</sup> Nixon, *The Memoirs of Richard Nixon*, 545; Gale Cengage Learning, Summary of the Collection, NCUSCT, <http://www.galetrials.com/products.aspx?pid=2831&marketID=2&trialID=42002&contactID=125> (accessed October 19, 2012); *Business Asia*, “US-Australian Liberalizations Broaden Hopes for China Trade; A Look at China’s Relations With Thailand, Indonesia,” II, no. 25 (June 18, 1971): 193.

<sup>257</sup> *Business Asia*, “Clearing the Way for US-China Trade: How Latest Nixon Move Affects US Firms and Their Subs,” III, no. 8 (February 25, 1972): 57-58.

were officially invited to this important biannual Chinese trade fair.<sup>258</sup> *Business Asia* reported that American attendees at the Canton trade fair were given preferential treatment by the Chinese organizers, including special invitations from the Canton fair committee, personal interpreters, and expedited access to appointments with Chinese trade officials.<sup>259</sup> Though the number of American participants was much smaller than the numbers from Japan, certain western European countries, and Australia, *Business Asia* reported that the small American group “stole the limelight.” But no large trade deals were made.<sup>260</sup> The Chinese showed interest in sophisticated American machinery but didn’t purchase any.<sup>261</sup> This first involvement by American companies in the Canton trade fair, however, simply broke the ice.

The spring 1972 Canton Trade Fair was followed by the first Chinese trade promotion in North America, held in the Canadian National Exhibition in August and early September 1972. China’s import-export corporations and China’s international trade committee were well represented at this exhibition. According to *Business Asia*, the Chinese representatives “extended an extremely cordial welcome to US executives” that travelled to Canada to attend this exhibition.<sup>262</sup> Canada's first trade

---

<sup>258</sup> U.S. Department of State, *Foreign Relations of the United States, 1969-1976*, Volume XVII, “China 1969-1972” (Washington, DC: GPO, 2006), 905.

<sup>259</sup> *Business Asia*, “US Presence at Canton Fair Makes Little Impact During First Two Weeks,” III, no. 17 (April 28, 1972): 129-130.

<sup>260</sup> *Business Asia*, “Canton Spring Trade Fair is Spectacular Success for PRC but Western Companies make No Dramatic Deals,” III, no. 21 (May 26, 1972): 161-162.

<sup>261</sup> *Business Asia*, “Canton Spring Trade Fair: Chinese Products Sell Fast,” III, no. 23 (June 9, 1972): 183.

<sup>262</sup> *Business Asia*, “PRC’s First Exhibit in North America Is Now Being Held in Canada,” III, no. 33 (August 18, 1972): 258.

fair in the PRC immediately followed this exhibition, and forty-five wholly U.S.-owned firms and forty-six firms who were partially U.S.-owned participated.<sup>263</sup>

Seventy-five American businesspeople attended the fall 1972 Canton trade fair, and Sobin Chemicals of Boston negotiated the first sale in a Canton fair of goods produced in the U.S. at this event.<sup>264</sup> Each year thereafter, many American businesspeople traveled to China to attend these trade fairs, offering opportunities for direct contact between American businesspeople and Chinese trade officials. The number of American participants each year climbed during the 1970s, reaching 630 in the spring of 1977. In these interactions, Chinese participants expressed interest in American oilfield equipment and petroleum-related services, food processing equipment, chemical fertilizer ingredients, and other U.S. machinery and technology. American participants representing advanced technology included Exxon, Mobil, Caltex, Continental Oil, Caterpillar, Dow, Union Carbide, Westinghouse, Allied Chemical, and Pratt & Whitney. Chinese interest in some products and technologies ran so high that the companies offering them were invited to Beijing for additional meetings.<sup>265</sup>

---

<sup>263</sup> *Business Asia*, "First Canadian Trade Fair in Peking: Dazzling Display of Technology, But Few Sales," III, no. 36 (September 8, 1972): 282.

<sup>264</sup> *Business Asia*, "Canton Autumn Fair Marks Breakthrough in Sino-US Trade—And How Sobin Chemicals Prepared the Ground," III, no. 47 (November 24, 1972): 369.

<sup>265</sup> *Business Asia*, "China Letter: Spring Canton Fair: Record Money Earner," IV, no. 20 (May 18, 1973): 155; *Business Asia*, "China Letter: Canton Fair Wrap-Up: Friendlier, More Business-Like Attitudes," IV, no. 50 (December 14, 1973): 399; *Business Asia*, "China Letter: Spring Canton Fair Disappointed Many Buyers, Sellers," V, no. 21 (May 24, 1974): 168; *Business Asia*, "Several New Signs Make Companies Believe China Trade Will Grow," IX, no. 42 (October 21, 1977): 332; *Business Asia*, "Bright Spots at Canton Come From Atmosphere Not From Sales Contracts," X, no. 20 (May 19, 1978): 157.

President Nixon's trip resulted in the creation of the National Council for United States-China Trade ("NCUSCT") in 1973 to promote trade between the U.S. and China. The White House and both the State Department and the Commerce Department encouraged the council's activities. On April 25, 1973, attorney and later vice-president of the NCUSCT Eugene A. Theroux circulated a draft list of activities for consideration by the Council. It included a section titled "Foster Acceptance of U.S. Business Techniques," which listed five items including "Joint-venturing agreements." Theroux noted that "The U.S. is not alone, of course, in seeking to gain acceptance in China for these or other unfamiliar business techniques. But working with the Chinese, the National Council may be able to formulate acceptable licensing or joint-venture models, *permitting U.S. companies first access on an experimental basis* [emphasis added]."<sup>266</sup>

*Business Asia* noted that the formation of the NCUSCT came at a time when China was "showing increased interest in US technology," as evidenced by technical data sales to China. The U.S. government approved seven sales of technology in 1973 by mid-year compared to only two in 1971.<sup>267</sup>

Twenty U.S. business leaders were selected by the Commerce Department to serve as the NCUSCT's executive committee, and about 200 companies joined the council in its first year. More than 300 business representatives attended the NCUSCT's first conference on May 31, 1973. The China Council for the Promotion

---

<sup>266</sup> Gale Cengage Learning, *Administrative Files: Subject File, NCUSCT:-Formation of Council, 1973 (1)-(2)*. 1973. NCUSCT, [http://go.galegroup.com/gdsc/i.do?&id=GALE%7CSC5102057911&v=2.1&u=acd\\_gdsc&it=r&p=GDSC&sw=w&viewtype=fullcitation](http://go.galegroup.com/gdsc/i.do?&id=GALE%7CSC5102057911&v=2.1&u=acd_gdsc&it=r&p=GDSC&sw=w&viewtype=fullcitation) (accessed October 21, 2012).

<sup>267</sup> *Business Asia*, "China Letter: Moves to Better Trade—and Transportation—With Peking," IV, no. 24 (June 15, 1973): 191.



of International Trade (“CCPIT”), which had been established in 1952 to promote foreign trade, was the Chinese counterpart to the NCUSCT.<sup>268</sup> Interactions between these two bodies allowed the Chinese government agencies that were responsible for foreign trade to gain insight into the interests of U.S. companies.<sup>269</sup>

In a speech in New York in September 1973, NCUSCT president Christopher H. Phillips acknowledged the interest of the audience in the possibility of joint ventures between American firms and Chinese corporations by including in his remarks clarification that “...the Chinese presently have no interest in equity arrangements with U.S. or any other firm.”<sup>270</sup> Other forms of investment in Chinese enterprises were also of interest to the members of the NCUSCT but not yet possible. Phillips circulated to the members of the NCUSCT delegation to China a list of five “Points Not To Be Discussed” during the November trip, one of which was “Direct Investment in the P.R.C.” In this document he stated, “There is no practicable possibility of direct U.S. investment in the PRC at the present time, although many observers feel that arrangements resembling direct investment may become feasible.” Phillips referred to recent remarks to the NCUSCT by Professor Lucien Pye in which

---

<sup>268</sup> Gale Cengage Learning, “Interview with Mr. Sun Fang, Head of the Public Relations Division of China Council for Promotion of International Trade,” *Administrative Files: Subject File, NCUSCT:-Historical Files (1)-(6), 1970 and 1972*, NCUSCT,

[http://go.galegroup.com/gdsc/i.do?&id=GALE%7CSC5102058095&v=2.1&u=acd\\_gdsc&it=r&p=GDSC&sw=w&viewtype=fullcitation](http://go.galegroup.com/gdsc/i.do?&id=GALE%7CSC5102058095&v=2.1&u=acd_gdsc&it=r&p=GDSC&sw=w&viewtype=fullcitation) (accessed October 21, 2012).

<sup>269</sup> Gale Cengage Learning, Summary of the Collection, NCUSCT, <http://www.galetrials.com/products.aspx?pid=2831&marketID=2&trialID=42002&contactID=125> (accessed October 19, 2012).

<sup>270</sup> Gale Cengage Learning, *Administrative Files: Subject File, Conferences:-Regional Conferences on East-West Trade, New York City, 9/27/73*, NCUSCT, [http://go.galegroup.com/gdsc/i.do?&id=GALE%7CSC5102026960&v=2.1&u=acd\\_gdsc&it=r&p=GDSC&sw=w&viewtype=fullcitation](http://go.galegroup.com/gdsc/i.do?&id=GALE%7CSC5102026960&v=2.1&u=acd_gdsc&it=r&p=GDSC&sw=w&viewtype=fullcitation) (accessed October 21, 2012).

Pye “pointed to China’s abundance of labor and great need for modern technology as forces which might compel something resembling foreign capital investment.”<sup>271</sup> The members of the NCUSCT were polled to determine topics of interest to them to be discussed at the upcoming meeting in China. Among the items identified by thirty-nine respondents, General Motors Overseas Investment Corporation asked about “the PRC’s attitudes toward joint ventures between National Council members and agencies of the PRC” and “what government incentive legislation is contemplated to induce foreign investment in China?”<sup>272</sup>

The first meeting of the NCUSCT and the CCPIT took place in China in November 1973. This was the first official meeting between American businesspeople and trade officials of the PRC in twenty-five years.<sup>273</sup> The U.S. participants included the chairman and chief executive officer of Westinghouse Electric Corporation, the chairman and chief executive officer of Deere & Company, the president of Cargill, Inc., and the chairman of J.C. Penney Company, Inc. Apparently the NCUSCT changed its position regarding the permissibility of speaking about direct investments in China. These American businessmen made their

---

<sup>271</sup> Gale Cengage Learning, “Memorandum, No Date, Christopher Phillips to Members of the 1973 Delegation of the National Council for U.S.-China Trade to China,” *Administrative Files: Subject File, NCUSCT:-Historical Files (1)-(6)*, 1970 and 1972, NCUSCT,

[http://go.galegroup.com/gdsc/i.do?&id=GALE%7CSC5102058095&v=2.1&u=acd\\_gdsc&it=r&p=GDSC&sw=w&viewtype=fullcitation](http://go.galegroup.com/gdsc/i.do?&id=GALE%7CSC5102058095&v=2.1&u=acd_gdsc&it=r&p=GDSC&sw=w&viewtype=fullcitation) (accessed October 21, 2012).

<sup>272</sup> Gale Cengage Learning, “Memorandum, October 12, 1973, Christopher Phillips to Members of the National Council Delegation to Peking, November, 1973,” *Administrative Files: Subject File, NCUSCT:-Historical Files (1)-(6)*, 1970 and 1972, NCUSCT,

[http://go.galegroup.com/gdsc/i.do?&id=GALE%7CSC5102058095&v=2.1&u=acd\\_gdsc&it=r&p=GDSC&sw=w&viewtype=fullcitation](http://go.galegroup.com/gdsc/i.do?&id=GALE%7CSC5102058095&v=2.1&u=acd_gdsc&it=r&p=GDSC&sw=w&viewtype=fullcitation) (accessed October 21, 2012).

<sup>273</sup> *Business Asia*, “China Letter: Trade Missions to Peking From New Zealand and the US,” IV, no. 41 (October 12, 1973): 325.

interests in joint ventures and close financial cooperation known in this first meeting. The first part of the NCUSCT agenda for this meeting addressed matters related to “Assistance to American importers and exporters interested in developing trade with China.” The fourth section in this category was “Determine Acceptability of U.S. Techniques,” including “(i) licensing agreements; (ii) joint-venturing agreements; (iii) credit financing; (iv) turn-key projects; (v) plant sales and lease-back arrangements” and other items.<sup>274</sup> Although the meeting minutes reported that the president of the CCPIT responded that “there was no possibility of joint ventures and no foreign ownership of any operations” in China at that time, this discussion in their first meeting clearly made the Chinese delegation aware of the U.S. side’s interest in these potential opportunities for direct investment and joint ventures.<sup>275</sup>

American companies began exploring opportunities for sales of advanced technology products and technology transfer to China after this first NCUSCT meeting, and China encouraged the visits of American technical delegations. Control Data Corporation (“CDC”) sent a team from its French subsidiary to China in 1974 to establish a contract for computer sales. CDC subsequently sent a small American group to China in early 1975 to follow up, and a senior executive visited China twice in 1976. A group of executives from Cummins Engine Company visited China in

---

<sup>274</sup> Gale Cengage Learning, “Memorandum, July 2, 1973,” *Administrative Files: Subject File, CCPIT:-Correspondence 1973 (1)-(9)*, 1973, NCUSCT, [http://go.galegroup.com/gdsc/i.do?&id=GALE%7CSC5102002682&v=2.1&u=acd\\_gdsc&it=r&p=GDSC&sw=w&viewtype=fullcitation](http://go.galegroup.com/gdsc/i.do?&id=GALE%7CSC5102002682&v=2.1&u=acd_gdsc&it=r&p=GDSC&sw=w&viewtype=fullcitation) (accessed October 21, 2012).

<sup>275</sup> Gale Cengage Learning, “Memorandum, December 12, 1973,” *Administrative Files: Subject File, NCUSCT:-Delegation to China, 1973-Trip Report*, 1973, NCUSCT, [http://go.galegroup.com/gdsc/i.do?&id=GALE%7CSC5102057229&v=2.1&u=acd\\_gdsc&it=r&p=GDSC&sw=w&viewtype=fullcitation](http://go.galegroup.com/gdsc/i.do?&id=GALE%7CSC5102057229&v=2.1&u=acd_gdsc&it=r&p=GDSC&sw=w&viewtype=fullcitation) (accessed October 21, 2012).

1975 to explore opportunities for licensing their diesel engine technology to China, and they brought Cummins technical specialists with them when they visited again in 1978. The Foxboro Company began pursuing opportunities for its products in China in 1975 through its European subsidiaries in order to bypass U.S. export restrictions on the sophisticated technology that it manufactured. Foxboro sent a delegation of senior executives to China in February 1979 to explore the possibility of a joint venture. Ultimately the joint venture that was established in 1982 between Foxboro and the PRC was “the first U.S.-China joint venture involving the transfer of high technology.” Westinghouse first sent a group of executives to China to explore technology transfer in 1974 in conjunction with a delegation from the NCUSCT, and more meetings took place between Westinghouse executives and Chinese counterparts between 1974 and 1979. A fifteen-year licensing agreement for thermal power plant turbine generators was signed in 1980. Westinghouse executives recalled the “Chinese ‘aggressiveness’ in wanting to do business with the United States. There appeared to be at that time an appreciation of America and American things.”<sup>276</sup> In a news section that began with the line, “China is clearly quite anxious to create goodwill in the US,” *Business Asia* reported in April 1977 that China had invited three technical delegations to travel to China. The three American delegations would represent food processing and packaging equipment, mining equipment, and oil equipment.<sup>277</sup>

---

<sup>276</sup> Schnepf, Von Glinow, and Bhambri, *United States-China Technology Transfer*, 45-48, 135-137, 87-93.

<sup>277</sup> *Business Asia*, “China Letter: Promising First-Half Canton Fair, Outlook for Sino-US Relations,” IX, no. 17 (April 29, 1977): 132.

U.S. oil companies and China both became particularly interested in developing China's potential oil reserves with American technology. Texas-based U.S. firms sold large amounts of oilfield equipment and technology to the Chinese between Nixon's visit to China in 1972 and 1975, and trade representatives from both the U.S. and China travelled regularly between the two countries. However, an American oil company executive observed in 1975 that the Chinese were not interested in "...the joint ventures that are common between oil companies and other foreign governments" and did not want American companies as investors in Chinese enterprises. Looking ahead, another executive offered, "If the Chinese are serious about becoming an oil power, then they'll wind up buying in the United States—not in Japan or Europe—because they know we are leaders in the business and they always want the best."<sup>278</sup>

The warming of relations between the United States and China literally opened the door for greater contact between American and Chinese people. According to historian Harry Harding, between 1,500 and 3,000 Americans visited China in 1972 alone, and 15,000 Americans visited China between the resumption of contact between the two countries and 1977.<sup>279</sup> American delegations to China represented a wide diversity of interests in addition to businesspeople, including students and academic groups, leftist as well as mainstream American political groups, and groups associated with artistic interests.<sup>280</sup> Librarian Kathlin Smith

---

<sup>278</sup> "The Houston-Peking Axis: Oil for China's lamps," *U.S. News and World Report*, December 22, 1975, 27.

<sup>279</sup> Harry Harding, *A Fragile Relationship: The United States and China since 1972* (Washington, D.C.: The Brookings Institution, 1992), 56.

<sup>280</sup> Harding, *A Fragile Relationship*, 55.

documented that delegations of American and Chinese scientists traveled between the two countries in 1973 and 1974.<sup>281</sup> Four years before he rose to the pinnacle of power as leader of China, Deng Xiaoping met in China with U.S. businesspeople, a delegation of American university presidents, and American political leaders in the fall of 1974.<sup>282</sup> Financial institutions sensed the emerging interest in expanding business with China. *Business Asia* reported in April 1977 that Bank of America was given permission by China to hold its annual board meeting in May in Peking (Beijing).<sup>283</sup>

Perhaps the most important delegation to visit China just prior to the reforms was the one led by President Jimmy Carter's science advisor, Frank Press, in July 1978. According to political scientist Robert S. Ross, Press and the delegation he led received "the warmest reception that a U.S. delegation had ever received in China since 1949." Most importantly, Ross reported that Deng Xiaoping in particular warmly welcomed Press and "broached the prospect of joint economic ventures in China" with him, which was the first time Deng raised this subject with a U.S. official.<sup>284</sup>

Warmer relations also opened the door for Chinese visitors to come to the U.S., which gave them an opportunity to see the modernization of the U.S. and its technology firsthand. A delegation from China's Techimport group visited advanced

---

<sup>281</sup> Kathlin Smith, "The Role of Scientists in Normalizing U.S.-China Relations: 1965-1979," *Annals of the New York Academy of Sciences* 866 (December 1998): 120, 125.

<sup>282</sup> Vogel, *Deng Xiaoping and the Transformation of China*, 86-87.

<sup>283</sup> *Business Asia*, "China Letter: Promising First-Half Canton Fair, Outlook for Sino-US Relations," IX, no. 17 (April 29, 1977): 132.

<sup>284</sup> Robert S. Ross, *Negotiating Cooperation: The United States and China, 1969-1989* (Stanford: Stanford University Press, 1995), 158-159.

machine tool manufacturers in the U.S. in 1976.<sup>285</sup> One thousand Chinese citizens visited the U.S. in 1977 alone.<sup>286</sup> *Business Asia* announced in 1977 that the NCUSCT would host a visit to the U.S. starting in September of that year by a fifteen-member team from the CCPIT.<sup>287</sup>

Deng Xiaoping made his first visit to the United States during April 4-16, 1974 to address the United Nations.<sup>288</sup> His address on April 10 was well received, particularly by developing countries, and he took the opportunity to meet with leaders of other countries while at the UN.<sup>289</sup> American technology and modernity made a tremendous impression on Deng during his stay in New York. According to historian Benjamin Yang, who attended college in China with Deng's youngest son, Deng Zhifang:<sup>290</sup>

Deng [Xiaoping] did not leave New York immediately after the UN conference. He decided to stay on for a few more days touring the city...The Broadway skyscrapers and Times Square subway station seemed awesome to him. The sharp contrast between American progress and Chinese backwardness was too obvious to deny. He would never afterward talk lightly about catching up with America in a few years.<sup>291</sup>

---

<sup>285</sup> *Business Asia*, "The Controversy Over Strategic Spratly Islands," VII, no. 26 (June 25, 1976): 208.

<sup>286</sup> Harding, *A Fragile Relationship*, 56.

<sup>287</sup> *Business Asia*, "China Letter: Promising First-Half Canton Fair, Outlook for Sino-US Relations," IX, no. 17 (April 29, 1977): 132.

<sup>288</sup> Benjamin Yang, *Deng: A Political Biography* (Armonk, NY: M.E. Sharpe, 1998), 179.

<sup>289</sup> Vogel, *Deng Xiaoping and the Transformation of China*, 84.

<sup>290</sup> According to Benjamin Yang, in 1980 Deng advised his son, Deng Zhifang, to attend school in America, saying "You will see what a modern world looks like" (Yang, *Deng*, 180). Deng Zhifang subsequently studied physics at the University of Rochester for seven years (Seth Faison, "Condolence Calls Put Rare Light on Deng's Family," *New York Times*, February 22, 1997).

<sup>291</sup> Yang, *Deng*, 180.

Deng's first priority when he had free time in New York on the weekend was to visit Wall Street. According to historian Ezra Vogel, "To Deng, Wall Street was the symbol not only of American capitalism but also of American economic might."<sup>292</sup>

Former British Ambassador Richard Evans argued:

[Deng's] visit to New York was important...it gave him his first sight of the modern Western world...There is nothing in the published record about what Deng thought of New York. But he would have been unique if he had not been impressed. Nothing in his experience of Paris in the early 1920s, or of Moscow in the 1950s and 1960s, could have prepared him for its skyline, its opulence and its bustle. Four days in Manhattan would have brought home to him more forcefully than any amount of reading how far China had to go before it could claim to be a modern country.<sup>293</sup>

Deng met Henry Kissinger for the first time and dined with him while he was in New York.<sup>294</sup> According to Ezra Vogel, Kissinger observed that Deng "was already thinking about what improved relations with the United States could do for China's modernization" during that first interaction between Kissinger and Deng in 1974.<sup>295</sup> Reflecting on that first meeting, Kissinger observed that "Deng's position on Sino-American relations was closely related to his views regarding China's evolution. Mao and Zhou had conducted rapprochement with the United States largely on foreign policy and security grounds. *Deng always treated close relations with America as a necessary component of Chinese modernization* [emphasis added]." According to Kissinger, "...Deng thought friendly relations with America were

---

<sup>292</sup> Vogel, *Deng Xiaoping and the Transformation of China*, 86.

<sup>293</sup> Richard Evans, *Deng Xiaoping and the Making of the Modern China*, rev. ed. (New York: Penguin Books, 1997), 200.

<sup>294</sup> Bernard Gwertzman, *New York Times*, April 12, 1974.

<sup>295</sup> Vogel, *Deng Xiaoping and the Transformation of China*, 85.



needed for the sake of China's domestic evolution...In pursuit of economic progress Deng strove for a significant improvement in the well-being of the Chinese people. *American technology and economic cooperation were essential for the economic and social reform to which he was committed* [emphasis added].”<sup>296</sup>

Long-serving Chinese premier Zhou Enlai spoke of how far China had fallen behind the technologically developed countries of the world in one of his last public appearances before his death. In January 1975, at the Fourth National People's Congress, he articulated China's need to quickly modernize its agriculture, industry, national defense, and science and technology, a challenge that he called the “Four Modernizations.” But Professor David Shambaugh argued, “Deng drafted the speech and crafted the programme.”<sup>297</sup> The Four Modernizations served as the battle cry of the reform era. Frequent references to the need for economic reforms to accelerate the achievement of the Four Modernizations were subsequently made throughout the reform period. By August 1975, Deng had formulated the essence of the redirection that eventually transformed China and the world. In a speech to the State Council on August 18, 1975, titled “Some Comments on Industrial Development,” Deng asserted:

We should introduce new technology and equipment from other countries and expand imports and exports. Foreign countries all attach great significance to the introduction of new equipment from abroad. Take their products apart, and you'll find that many parts or components are also made abroad...All in all, we should strive to expand exports in exchange for high-grade, high-

---

<sup>296</sup> Kissinger, *Years of Renewal*, 868-869.

<sup>297</sup> Gao Wenqian, trans. Peter Rand and Lawrence R. Sullivan, *Zhou Enlai: The Last Perfect Revolutionary-A Biography* (New York: Public Affairs, 2007), 275; Shambaugh, “Deng Xiaoping: The Politician,” 58-59.

precision, advanced technology and equipment so as to speed up the technical transformation of our industries and to raise the productivity of labour.<sup>298</sup>

Deng Xiaoping made reference to his earlier interest in reforms in a speech on September 16, 1978, just three months before the first reforms were adopted. Deng said:

Unless the Central Committee of the Party is prepared to rethink issues and is prepared to act in the light of present conditions, many questions will never be posed or resolved. For example, while Comrade Mao was still living we thought about expanding economic and technical exchanges with other countries. We wanted to develop economic and trade relations with certain capitalist countries and *even to absorb foreign capital and undertake joint ventures*. But the necessary conditions were not present, *because at the time an embargo was being imposed on China*... After several years of effort, we have secured international conditions that are far better than before; they enable us to make use of capital from foreign countries and of their advanced technology and experience in business management.<sup>299</sup>

The U.S. led its allies to impose a trade embargo on China in 1950 after Chinese troops began supporting North Korea in the Korean War. However, the other countries began resuming trade with China beginning in 1957 and only the U.S. continued to impose an embargo after 1958.<sup>300</sup> The U.S. embargo was not terminated until 1971. Did Deng's remarks just three months before the adoption in December of China's first sweeping reforms imply that China was specifically targeting those

---

<sup>298</sup> Deng, *Selected Works of Deng Xiaoping (1975-1982)*, 43.

<sup>299</sup> Deng, "Hold High the Banner of Mao Zedong Thought and Adhere to the Principle of Seeking Truth From Facts," *Selected Works of Deng Xiaoping (1975-1982)*, 142-143; emphasis added.

<sup>300</sup> Kailai Huang, "American Business and the China Trade Embargo in the 1950s," *Essays in Economic and Business History* (2001), 44, [http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=5&ved=0CEkQFjAE&url=http%3A%2F%2Fwww.ebhsoc.org%2Fjournal%2Findex.php%2Fjournal%2Farticle%2Fdownload%2F131%2F126&ei=OUqiUMX6DOri0gGwqoDoDg&usg=AFQjCNGl1jEkPo\\_NoBz2Rc4NmjJCjkXkmA](http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=5&ved=0CEkQFjAE&url=http%3A%2F%2Fwww.ebhsoc.org%2Fjournal%2Findex.php%2Fjournal%2Farticle%2Fdownload%2F131%2F126&ei=OUqiUMX6DOri0gGwqoDoDg&usg=AFQjCNGl1jEkPo_NoBz2Rc4NmjJCjkXkmA) (accessed November 13, 2012).

reforms to open opportunities “*to absorb foreign capital and undertake joint ventures*” with American companies?

When Deng triumphantly returned to the U.S. in 1979, he was asked what he wanted to see. Deng replied that he wanted to see “space and your advanced technology.” He was subsequently taken to the Johnson Space Center and to the Ford and Boeing advanced technology factories. An American official who was accompanying Deng was reported as saying, “They [the Chinese] perceive us as the most advanced society, and they idealize us and look for magic coming out of their new [U.S.] connection.”<sup>301</sup>

Many of the American leaders that met with Deng Xiaoping and other Chinese leaders in the mid- to late 1970s noted their specific interest in gaining access to American technology. Jimmy Carter recorded in his memoirs regarding 1977 that, “Although the very top leaders refused to visit the United States as long as there was an ambassador from Taiwan in Washington, they seemed eager for a few of their cabinet-level officials to come to discuss such matters as commercial trade and possible future access by China to United States technology.”<sup>302</sup> Zbigniew Brzezinski, President Jimmy Carter’s National Security Advisor, noted that Deng “stressed China’s interest in obtaining greater access to American technology” when the two men met in May 1978.<sup>303</sup> And Henry Kissinger asserted that “[Deng] based

---

<sup>301</sup> Jeffrey Schultz, “Conclusion: The Four Modernizations Reconsidered,” in *China’s Four Modernizations: The New Technological Revolution*, ed. Richard Baum (Boulder, CO: Westview Press, 1980), 267.

<sup>302</sup> Carter, *Keeping Faith*, 192.

<sup>303</sup> Zbigniew Brzezinski, *Power and Principle: Memoirs of the National Security Advisor 1977-1981* (New York: Farrar, Straus Giroux, 1983), 214.

his reform on market economics—which he called socialist market economics—and friendly relations with the United States.”<sup>304</sup>

In conclusion, the exchanges that occurred in the early 1970s between American contacts and their Chinese counterparts made clear to the Chinese that American firms were interested in cooperating in joint ventures and other forms of FDI in China. Chinese technologists recognized the superiority of American technology. Deng Xiaoping, Hua Guofeng, Chou Enlai and other Chinese leaders recognized that China had fallen significantly behind the developed world and desperately needed to accelerate its importation of advanced foreign technology in order to modernize its agriculture, industry, national defense, and science and technology. Deng and Hua recognized the need for economic reforms to enable faster importation of foreign technology in the mid-1970s but were held back by political enemies. I argue, therefore, that Deng, Hua, and other Chinese leaders recognized that they needed deeper access to American technology than normal trade relations would facilitate. I also argue that Deng and Hua and other Chinese leaders likely launched their 1979 joint venture law with the goal of specifically attracting American investments and technology to China.

---

<sup>304</sup> Kissinger, *Years of Renewal*, 164, 868-869.

## Chapter 5: Conclusions

Negotiations on the normalization of relations between the U.S. and China took place through the 1970s.<sup>305</sup> According to Jimmy Carter's notes, the U.S. and China agreed to a draft communiqué that confirmed the upcoming normalization of relations by the U.S. with China on December 13, 1978. China announced its first economic reforms four days later.<sup>306</sup> *Business Asia* announced in January 1979 that China was willing to consider proposals for joint ventures between foreign and Chinese entities, but American companies were reluctant to pursue joint ventures without having guidelines and boundaries established in Chinese law.<sup>307</sup> China published its new law allowing joint ventures with foreign firms on July 8, 1979. The new joint venture law stated that China expected "truly advanced" technology and equipment to be supplied by foreign partners to joint ventures and warned that penalties would be charged to foreign companies who deceptively provided old technology.<sup>308</sup> China then created the China International Trust and Investment Corporation (CITIC) in 1979 to lead the development of joint ventures between Chinese and foreign entities and to bring foreign technology and investment to China. CITIC's first client was an American firm, E-S Pacific Corporation, which wanted to

---

<sup>305</sup> William C. Kirby, Robert S. Ross, and Gong Li, *Normalization of U.S.-China Relations: An International History* (Cambridge, MA: Harvard University Asia Center, 2005); See Ross, *Negotiating Cooperation*.

<sup>306</sup> Carter, *White House Diary*, 265.

<sup>307</sup> *Business Asia*, "How To Work With Vague Chinese Rules On Joint Ventures," XI, no. 1 (January 5, 1979): 2-3; *Business Asia*, "Impact on Companies Of US-China Agreement On Trade and Claims," XI, no. 20 (May 18, 1979): 159.

<sup>308</sup> *Business Asia*, "New Joint Venture Law Sets Out Procedure for Investing in China," XI, no. 28 (July 13, 1979): 217-218.

invest in several entities in China.<sup>309</sup> President Jimmy Carter normalized diplomatic relations with China in 1979. Professor Robert Kleinberg noted that more than \$2 billion USD flowed into China in foreign direct investments by the end of 1981, and most of those investments came from the U.S.<sup>310</sup>

As the U.S. government debated granting Most Favored Nation (“MFN”) status to China in mid-1979, a growing number of members of Congress argued that if the U.S. granted MFN to China, it had to also extend MFN to the U.S.S.R.<sup>311</sup> However, efforts at détente between the United States and the Soviet Union came to a halt in December 1979 when the Soviet Union invaded Afghanistan. President Carter renewed MFN status to China in 1980, which removed most restrictions on China’s trade with the U.S. and enhanced China’s ability to export to the U.S. However, because of the new tensions between the U.S. and the U.S.S.R., MFN status was not renewed to the Soviet Union.<sup>312</sup>

Mao deeply instilled in the Chinese culture and the CCP administration a strong focus on self-reliance. How could China acquire foreign technology in order to address its weaknesses but retain self-reliance and avoid being overrun by foreign "imperialists" like it was in the second half of the 19th century? It is in this context that it is important to assess China’s alternatives to the United States as suppliers of advanced technology in 1979. Some countries, most significantly Japan, had maintained active trade relations with China during the period between 1950 and

---

<sup>309</sup> *Business Asia*, “New Chinese Corporation Will Not Be The Only Joint Venture Vehicle,” XI, no. 42 (October 19, 1979): 330-331.

<sup>310</sup> Kleinberg, *China’s “Opening” to the Outside World*, 13.

<sup>311</sup> *Business Asia*, “Impact on Companies Of US-China Agreement On Trade and Claims,” XI, no. 20 (May 18, 1979): 159.

<sup>312</sup> Harding, *A Fragile Relationship*, 80-81, 95.

1971 when the U.S. prohibited trade with China, thereby potentially making them preferred technology partners in 1979 compared to the United States. Japan restored diplomatic relations with China in 1972 when the U.S. had not yet restored diplomatic relations with China. Japan certainly possessed advanced technology in 1979. Deng acknowledged the high degree of modernization he observed when he visited Japan in 1978.<sup>313</sup> But Japan's technology leading up to 1979 was largely derived from American technology. Furthermore, political scientist Margaret Pearson noted that Japan's government discouraged investment in China during the 1970s and 1980s. Japanese companies eagerly engaged in very profitable trade with China, but were more wary at that time of engaging in joint ventures than American or European firms. Japan was interested in selling to China but did not want to share advanced Japanese technology with China in 1979, fearful of creating a competitor. Although the shifting of the yen exchange rate made low-cost manufacturing in China more attractive to Japanese companies in the mid-1980s, Japan preferred to export to China from Japan in the late 1970s order to protect its proprietary technology.<sup>314</sup> As a result, Japan was initially "extremely cautious" about investing in China when the Open Door policies were first launched.<sup>315</sup>

In a widely cited paper, Kiyoshi Kojima asserted that Japanese technology transfer to developing countries emphasized labor-intensive, low-level technology, while American technology transfer to developing countries emphasized highly

---

<sup>313</sup> Barry Naughton, "Deng Xiaoping: The Economist," in *Deng Xiaoping: Portrait of a Chinese Statesman*, ed. David Shambaugh (New York: Oxford University Press, 1995), 101.

<sup>314</sup> Pearson, *Joint Ventures in the People's Republic of China*, 32.

<sup>315</sup> Grub and Lin, *Foreign Direct Investment in China*, 84-85.

advanced technology. He explained that the Japanese technology transfer relationship typically took the form of Japan supplying the raw materials and equipment, providing extensive local management in the foreign region, training the foreign workforce in basic, low-technology standardized work skills, and then providing the end market for the final manufactured products back in Japan. Japan did not want to transfer advanced technology to developing countries, preferring to keep that technology in Japan. But he noted that American technology transfer typically resulted in the transfer of high-level, advanced technology to both developing and developed economies where the American supplier saw an opportunity to gain market share in the local foreign market.<sup>316</sup> I argue that the Chinese reformers very likely initially saw the Japanese approach to technology transfer as one of establishing long-term dependency on Japan for raw materials, proprietary technology, and demand, thereby returning to allowing an “imperialist” relationship with Japan to again develop in China. The American approach, on the other hand, would allow Chinese technologists to learn and eventually replicate advanced American technology, which was China’s ultimate objective. As China opened its door to foreign advanced technology, it simultaneously began to aggressively promote the development and advancement of its domestic science and technology capabilities, thereby increasing its ability to absorb and ultimately reproduce advanced Western technology.<sup>317</sup> China deployed other means after 1979

---

<sup>316</sup> Kiyoshi Kojima, “Transfer of Technology to Developing Countries: Japanese Type versus American Type,” *Hitotsubashi Journal of Economics*, 17, no 2 (February 1977): 5.

<sup>317</sup> See Jiang Xiaojuan, “Chinese government policy towards science and technology and its influence on the technical development of industrial enterprises,” in *Chinese*



to largely protect its domestic market from American and other foreign suppliers, but that is an important and complex subject that is beyond the scope of this thesis.

Furthermore, China's other large trading partners in the late 1970s did not have the same level of interest as the U.S. in joint ventures and direct investment in China in the late 1970s. The government of Taiwan prohibited investments in China until 1987, and Hong Kong had little incentive to invest in China until the 1980s because of its already low labor costs and active trade with China.<sup>318</sup> Eventually Hong Kong became the largest source of foreign direct investment in China in the 1980s, but its investments were typically in small, labor-intensive, assembly operations, which didn't provide the advanced technology that China sought to accomplish its "Four Modernizations."<sup>319</sup>

France and Germany possessed advanced technology, but their technology level between 1968-1978 was inferior to that of the U.S. Partnering again with the Soviet Union was out of the question--the U.S.S.R. and China were bitter enemies at the time of the reforms (but China and the Soviet Union later repaired their relationship after the U.S. restored diplomatic relations with China in 1979 and after hostilities increased between the U.S. and the U.S.S.R. in the 1980s). By opening China to American FDI and joint ventures and utilizing the technology so acquired to build an export-oriented economy, China was able to draw in advanced technology that it could learn and copy, while building its foreign reserves that it could use to

---

*Technology Transfer in the 1990s: Current Experience, Historical Problems and International Perspectives*, ed. by Charles Feinstein and Christopher Howe (Lyne, NH: Edward Elgar, 1997), 136-144.

<sup>318</sup> Grub and Lin, *Foreign Direct Investment in China*, 84-85; Sun, *Foreign Investment and Economic Development in China*, 25.

<sup>319</sup> Sun, *Foreign Investment and Economic Development in China*, 25.

acquire more technology, all while protecting its domestic market and avoiding a return to “imperialist” domination.

The U.S. had looked at China as a vast potential market since the middle of the 19th century. China was the largest unsaturated market for advanced technology left in the world in the 1970s, and American business leaders were keenly interested in tapping into that market.<sup>320</sup> The U.S. had already demonstrated its interest and capabilities in moving technology through FDI into developing nations through its activities in the East Asian Tiger countries. Chinese reformers and decision makers could take two lessons from the U.S. histories in the Soviet Bloc and in the East Asian “Tiger” economies. The first was that American companies were not only willing but were eager to enter into technology transfer relationships, whether by setting up joint ventures, selling technology licenses, or by establishing foreign-based wholly owned subsidiaries into which advanced technology would be transferred from American parents. The second lesson was that American companies were quite willing for their foreign technology partners to build export-oriented economies utilizing American technology, even for export back to the United States, if the foreign partner provided low-cost labor that resulted in higher profits for the American partner than U.S.-based manufacturing provided. While Chinese reformers certainly wished to open China to mutually beneficial technology transfer relationships with all of the advanced economies of the world, I argue that Chinese reformers likely wanted to specifically gain access to advanced American technology. The evidence strongly suggests that they also wanted to pull American technology

---

<sup>320</sup> Schnepf, Von Glinow, and Bhambri, *United-States-China Technology Transfer*, 1.

into China in order to advance China's national security and counter the threat posed by the Soviet Union.

Chinese reformers studied the experiences of the Soviet Union's allies in Eastern Europe and saw that foreign capital and joint ventures had been utilized to the benefit of those economies. Even more importantly, they studied the experiences of the modern and rapidly growing East Asian "Tigers," and certainly they saw that the American capital and advanced technology that had been gained through joint ventures and direct investment benefitted those economies by expanding their export base. American businesspeople, particularly those who served on the NCUSCT and those who had experience with foreign direct investments and joint ventures in other countries, made clear to their Chinese counterparts that they were ready to enter China.

And in fact American investments flowed to China after the reforms of 1979. According to Professor Philip Donald Grub and economist Jian Hai Lin:

During the early period (from 1979 to 1986), U.S. investment in China was strong...In contrast to Japanese conservatism, U.S. firms were more aggressive toward the Chinese market in the first half of the decade. Their competitive advantage in technology and management, together with their eagerness to exploit new business opportunities in this vast and untapped market, led to a surge in their investment activities in these years.<sup>321</sup>

A 2012 study reported that annual foreign direct investment into China reached \$100 million in 1979, climbed to \$1 billion in 1984, and reached around \$40 billion in 1995. It has remained above \$40 billion each year since then.<sup>322</sup>

---

<sup>321</sup> Grub and Lin, 84.

<sup>322</sup> Hale and Long, *Foreign Direct Investment in China*, 2.

China's post-1978 economic development dramatically changed world trade, and in particular its trade relations with the U.S. China's economy is now the second largest in the world; its gross domestic product is more than ten times larger than it was in 1978; and it is the largest exporter in the world, with the U.S. its largest export destination.<sup>323</sup> China's trade balance with the U.S. shifted from a U.S. surplus of \$467 million USD in 1978 to a Chinese surplus of \$174.4 billion USD today.<sup>324</sup>

China's growth after 1979 is the greatest story of economic transformation in the modern age, and its successful transformation was substantially influenced by the importation of advanced technology through joint ventures and foreign direct investment. Defining the influences that led China's reformers to open China to foreign joint ventures and direct investment is a meaningful contribution to historical scholarship. While I realize that attempting to analyze the influences that led to China's 1979 joint venture law is problematic without accessing Chinese primary sources, particularly the personal records of the Chinese reformers, I believe the evidence that I was able to access was compelling. I argue that the opportunity to specifically gain access to American technology through joint ventures and FDI was likely the primary influence that led China to issue its 1979 law that opened China to foreign joint ventures and FDI.

---

<sup>323</sup> Central Intelligence Agency, "The World Factbook: China," <https://www.cia.gov/library/publications/the-world-factbook/geos/ch.html> (accessed October 8, 2012).

<sup>324</sup> U.S. International Trade Commission, "Assessment of the Economic Effects on the United States of China's Accession to the WTO," Investigation No. 332-403, Publication 3229, September 1999, pg. 2-10; United States Census Bureau, "Trade in Goods with China," <http://www.census.gov/foreign-trade/balance/c5700.html> (accessed October 8, 2012).

## Bibliography

### Primary Sources

Arce, Hugh M., and Christopher T. Taylor, Research Division, Office of Economics, U.S. International Trade Commission. *The Effects of U.S. MFN Status on China*. Office of Economics Working Paper. Revised July 1997. Washington, DC: Office of Economics, U.S. International Trade Commission, July 1997.

Associated Press. "Y.C. Wang, Billionaire Who Led Formosa Plastics, Is Dead at 91." *New York Times*, October 16, 2008

BBC, "Opening the Door: How Deng Xiaoping Transformed China's Economy," Researchport, University of Maryland-College Park, Films On Demand. Item Number: 40670. *China's Capitalist Revolution Series*.  
<http://digital.films.com.proxy-um.researchport.umd.edu/PortalPlaylists.aspx?aid=26157&xtid=40670>  
(accessed October 12, 2013).

Boarman, Patrick M., ed. Assisted by Jayson Mugar. *Trade with China: Assessments by Leading Businessmen and Scholars*. New York: Praeger, 1974.

Brzezinski, Zbigniew. *Power and Principle: Memoirs of the National Security Advisor 1977-1981*. New York: Farrar Straus Giroux, 1983.

*Business Asia*, "China Letter: New Trade Corporation Expected To Buy Packaging Equipment," VIII, no. 24 (June 11, 1976): 186-187.

*Business Asia*, "Asia/Pacific Briefs," III, no. 37 (September 15, 1972): 296.

*Business Asia*, "Asia/Pacific Briefs," IV, no. 16 (April 20, 1973): 128.

*Business Asia*, "Asia/Pacific Continues With World's Highest Profits, Fastest Investment Growth," IV, no. 48 (November 30, 1973): 377-378.

*Business Asia*, "Bright Spots at Canton Come From Atmosphere Not From Sales Contracts," X, no. 20 (May 19, 1978): 157.

*Business Asia*, "*Business Asia*: Its Meaning to Your Company," 1, no. 1 (October 30, 1970): 3.

*Business Asia*, "Business Outlook: Hong Kong," V, no. 33 (August 16, 1974): 264.

*Business Asia*, "Business Outlook: Hong Kong," VI, no. 12 (March 21, 1975): 96.

*Business Asia*, "Business Outlook: Singapore," V, no. 38 (September 20, 1974): 304.

- Business Asia*, “Business Outlook: Taiwan,” IV, no. 48 (November 30, 1973): 382.
- Business Asia*, “Business Outlook: Taiwan,” V, no. 46 (November 15, 1974): 368.
- Business Asia*, “Canton Autumn Fair Marks Breakthrough in Sino-US Trade—And How Sobin Chemicals Prepared the Ground,” III, no. 47 (November 24, 1972): 369-370.
- Business Asia*, “Caltex Contract Change Shows Korean Government Pragmatism,” V, no. 37 (September 13, 1974): 294.
- Business Asia*, “Canton Spring Trade Fair: Chinese Products Sell Fast,” III, no. 23 (June 9, 1972): 183.
- Business Asia*, “Canton Spring Trade Fair is Spectacular Success for PRC but Western Companies make No Dramatic Deals,” III, no. 21 (May 26, 1972): 161-162.
- Business Asia*, “China Letter: Birth of New Business Groups for Trade With China,” IV, no. 13 (March 30, 1973): 103.
- Business Asia*, “China Letter: Canton Fair Wrap-Up: Friendlier, More Business-Like Attitudes,” IV, no. 50 (December 14, 1973): 399.
- Business Asia*, “China Letter: CDC’s Computer Sale Offers Hints and Hope,” VIII, no. 49 (December 3, 1976): 391.
- Business Asia*, “China Letter: Moves to Better Trade—and Transportation—With Peking,” IV, no. 24 (June 15, 1973): 191.
- Business Asia*, “China Letter: New Trade Corporation Expected To Buy Packaging Equipment,” VIII, no. 24 (June 11, 1976): 186-187.
- Business Asia*, “China Letter: Promising First-Half Canton Fair, Outlook for Sino-US Relations,” IX, no. 17 (April 29, 1977): 132.
- Business Asia*, “China Letter: Spring Canton Fair Disappointed Many Buyers, Sellers,” V, no. 21 (May 24, 1974): 168.
- Business Asia*, “China Letter: Spring Canton Fair: Record Money Earner,” IV, no. 20 (May 18, 1973): 155.
- Business Asia*, “China Letter: Trade Missions to Peking From New Zealand and the US,” IV, no. 41 (October 12, 1973): 325.

- Business Asia*, "China's Decentralization Spells Direct Deals With the Provinces," XI, no. 38 (September 21, 1979): 303.
- Business Asia*, "China's Emerging Emphasis on Economy Creates Opportunities," IX, no. 4 (January 28, 1977): 32.
- Business Asia*, "China's Pragmatists Appoint Chairman, Crack Down on Radicals," VIII, no. 42 (October 15, 1976): 329.
- Business Asia*, "China Supports ASEAN Economic and Political Objectives," VII, no. 20 (May 14, 1976): 155.
- Business Asia*, "Chou's Four Principles," II, no. 31 (July 30, 1971): 245.
- Business Asia*, "Clearing the Way for US-China Trade: How Latest Nixon Move Affects US Firms and Their Subs," III, no. 8 (February 25, 1972): 57-58.
- Business Asia*, "Duller Year Ahead Based on Spending Plans Of US Subsidiaries," IX, no. 49 (December 9, 1977): 388.
- Business Asia*, "European, US Investors Display Unshattered Confidence In Taiwan Despite Diplomatic Setbacks," III, no. 13 (March 31, 1972): 97-98.
- Business Asia*, "Fairchild's Semiconductor Operation in Asia/Pacific," III, no. 42 (October 20, 1972): 336.
- Business Asia*, "First Canadian Trade Fair in Peking: Dazzling Display of Technology, But Few Sales," III, no. 36 (September 8, 1972): 282.
- Business Asia*, "Ford Investment in Taiwan: A Great Vote of Confidence," III, no. 46 (November 17, 1972): 365-366.
- Business Asia*, "Foreign Direct Investment in Taiwan Slows Down Reflecting Worldwide Slump," VI, no. 8 (February 21, 1975): 59-62.
- Business Asia*, "Foreign Investors in Hong Kong: Government Partly Lifts Veil," II, no. 12 (March 19, 1971), 92.
- Business Asia*, "Foreign Investments Under Japan's Automatic Approval Scheme," III, no. 13 (March 31, 1972): 100.
- Business Asia*, "Foreign Manufacturers Continue to Open Plants in Hong Kong," VII, no. 7 (February 13, 1976): 52.
- Business Asia*, "Fundamental Changes Spell New Opportunities To Sell to Japan," XI, no. 18 (May 4, 1979): 137-138.

- Business Asia*, "General Motors South Korean Move Underlines Asia/Pacific Growth Prospects," III, no. 16 (April 21, 1972): 121-122.
- Business Asia*, "Hong Kong Admission Criteria For New Industrial Estates," V, no. 47 (November 22, 1974): 370-371.
- Business Asia*, "Hong Kong's Land Use Policy Attracts Large Dow Investment," V, no. 13 (March 29, 1974): 98-99.
- Business Asia*, "How Korea's Ulsan Industrial Area Stacks Up For Investors," VI, no. 21, (May 23, 1975): 163-166.
- Business Asia*, "How NCR is Organized For Asia/Pacific Operations," III, no. 15 (April 14, 1972): 119-120.
- Business Asia*, "How To Work With Vague Chinese Rules On Joint Ventures," XI, no. 1 (January 5, 1979): 2-3.
- Business Asia*, "Hutchison-PRC Venture in Hong Kong," IV, no. 6 (February 9, 1973): 43.
- Business Asia*, "Impact on Companies Of US-China Agreement On Trade and Claims," XI, no. 20 (May 18, 1979): 159-160.
- Business Asia*, "Important Reversal In US Investment In Asia/Pacific Region," XI, no. 51 (December 21, 1979): 404-405.
- Business Asia*, "Investment in Taiwan," vol. VII, no. 5 (January 30, 1976): 35.
- Business Asia*, "Japan Eases Licensing: Foreign Companies Pleased," III, no. 21 (May 26, 1972): 167-168.
- Business Asia*, "Japan Opens Its Doors to Foreign Investors: Most Restraints End Next Week, Others By 1976," IV, no. 17 (April 27, 1973): 129-130.
- Business Asia*, "Japan's Automatic Approvals: BA Surveys Firms' Experience," III, no. 13 (March 31, 1972): 99-101.
- Business Asia*, "Korean Companies: Threat and Opportunity-Part II," IX, no. 13 (April 1, 1977): 103-104.
- Business Asia*, "Korean Government Aims to Restructure Industrial Base," IX, no. 36 (September 9, 1977): 282-284.



- Business Asia*, "Korean Opportunities Part II: Prospects for Direct Investment," XI, no. 6 (February 9, 1979): 47-48.
- Business Asia*, "Korean Opportunities Part III: Government's Attitude Toward Investors," XI, no. 8 (February 23, 1979): 62-63.
- Business Asia*, "Korea Plans Automobile Industry: Major World Firms Lured by Prospects," II, no. 4 (January 22, 1971): 25-26.
- Business Asia*, "Kwangtung Offers Sites For Joint Ventures In China's Export Zones," XI, no. 40 (October 5, 1979): 313-314.
- Business Asia*, "Large Development Projects Enhance Taiwan's Economic Status," V, no. 17 (April 26, 1974): 129-130.
- Business Asia*, "Latest US Direct Investment Data Confirm Asia/Pacific's Fastest Growth, Highest Profitability," IV, no. 48 (January 19, 1973): 17-18.
- Business Asia*, "Major Korean Companies As Partners/Competitors For MNCs-Part III," IX, no. 14 (April 8, 1977): 110-111.
- Business Asia*, "Manufacturing Grows In South Korea's Masan Free Export Zone," VI, no. 28 (July 11, 1975): 221-224.
- Business Asia*, "MITI Survey Shows Why Foreign Companies Invest in Japan," VII, no. 14 (April 2, 1976): 110-112.
- Business Asia*, "Mobil, Allied Chemical Sell Taiwan Plant to Government," II, no. 3 (January 15, 1971): 19.
- Business Asia*, "More 1973 Licensing Deals," V, no. 10 (March 8, 1974): 76.
- Business Asia*, "New Breakthroughs Coming in China Deals: Commercial Revolution," X, no. 49 (December 8, 1978): 385-386.
- Business Asia*, "New Breakthrough in Selling to China: Countertrade Comes of Age," X, no. 40 (October 6, 1978): 316-317.
- Business Asia*, "New Chinese Corporation Will Not Be The Only Joint Venture Vehicle," XI, no. 42 (October 19, 1979): 330-331.
- Business Asia*, "New Incentives For Taiwan Investors But Clouds Remain," IX, no. 29 (July 22, 1977): 231.
- Business Asia*, "New Joint Venture Law Sets Out Procedure for Investing in China," XI, no. 28 (July 13, 1979): 217-218.

- Business Asia*, "New Korean Projects," VII, no. 15 (April 9, 1976): 116.
- Business Asia*, "New Opportunities In Korea's Plans To Import Technology," X, no. 10 (March 10, 1978): 74-77.
- Business Asia*, "No Rush to Invest in Japan Despite Easing of Rules," V, no. 19 (May 10, 1974): 148-149.
- Business Asia*, "OMC Purchases Public Land For New Hong Kong Factory," IV, no. 15 (April 13, 1973): 115-116.
- Business Asia*, "P&G's Joint Venture in Japan: Problems With Expansion," V, no. 6 (February 8, 1974): 41-42.
- Business Asia*, "Passage of Marshal Chu The Limelights Succession Question," VIII, no. 28, (July 9, 1976): 224.
- Business Asia*, "Peking Caught Flirting With Unattached Toyota," II, no. 31 (July 30, 1971): 245.
- Business Asia*, "Philco-Ford's Industrial Accidents in Taiwan Spell Clear Warning for International Companies Everywhere," III, no. 45 (November 10, 1972): 353-354.
- Business Asia*, "PRC's First Exhibit in North America Is Now Being Held in Canada," III, no. 33 (August 18, 1972): 258.
- Business Asia*, "Problems of Trading With the Two Chinas," V, no. 1 (January 4, 1974): 7-8.
- Business Asia*, "Recession-Struck Japan: Where Firms Invest Points to Opportunities," X, no. 9 (March 3, 1978): 67-68.
- Business Asia*, "Refinery, Petrochemical Plant Bids Compete for Hong Kong," IV, no. 32 (August 10, 1973): 256.
- Business Asia*, "Selling Technology to Japan: What Industries Buy From Whom," V, no. 10 (March 8, 1974): 74-76.
- Business Asia*, "Several New Signs Make Companies Believe China Trade Will Grow," IX, no. 42 (October 21, 1977): 332.
- Business Asia*, "Singapore—A Happy Selection for Cummins Diesel International," III, no. 10 (March 10, 1972): 79.

- Business Asia*, "Singapore Develops Fast As Major Electronics Center," III, no. 33 (August 18, 1972): 262-263.
- Business Asia*, "Singapore Electronics Firms Cut Costs by Laying Off Labor," V, no. 33 (August 16, 1974): 259.
- Business Asia*, "Singapore's Electronics Manufacturers," III, no. 33 (August 18, 1972): 263.
- Business Asia*, "Singapore's Investment Policy: Two Cases to Prove a Point," IV, no. 7 (February 16, 1973): 52.
- Business Asia*, "Singapore-US Relations Receive a Small Boost From Lee's Recent Visit," IX, no. 43 (October 28, 1977): 342-343.
- Business Asia*, "Sino-US Trade Jumps—Hong Kong Benefits," IV, no. 3 (January 19, 1973): 19.
- Business Asia*, "Some 1973 Licensing Deals With Japanese Firms," V, no. 9 (March 1, 1974): 66.
- Business Asia*, "Some New Metalworking and Precision Engineering Investments in Singapore," V, no. 11 (March 15, 1974): 88.
- Business Asia*, "Some Recent Foreign Investments in Japan," V, no. 19 (May 10, 1974): 149.
- Business Asia*, "South Korea Approves New Huge Dow Investment Plans," VI, no. 7 (February 14, 1975): 53, 56.
- Business Asia*, "South Korea Feels the Pinch: Major Projects Are Postponed," VI, no. 15 (April 11, 1975): 115-117.
- Business Asia*, "South Korea's Expanding Market For Foreign Technical Know-How," V, no. 43 (October 25, 1974): 340-343.
- Business Asia*, "Taiwan Investment Opportunities," IV, no. 27 (July 6, 1973): 213.
- Business Asia*, "Taiwan: Licensing Terms Stiffen," IX, no. 48 (December 2, 1977): 384.
- Business Asia*, "Taiwan Offers Opportunities For Licensing From Abroad," V, no. 31 (August 2, 1974): 247.
- Business Asia*, "Taiwan Pinpoints 123 Priority Areas For Investment," VIII, no. 23 (June 4, 1976): 183.

*Business Asia*, "Taiwan's Zooming Foreign Trade Opens Opportunities," V, no. 17 (April 26, 1974): 130.

*Business Asia*, "Technology Purchases By Japan Decrease For First Time in Years," VI, no. 50 (December 12, 1975): 400.

*Business Asia*, "The Business Outlook: Hong Kong," III, no. 27 (July 7, 1972): 214.

*Business Asia*, "The Business Outlook: Hong Kong," III, no. 51 (December 22, 1972): 406.

*Business Asia*, "The Business Outlook: Hong Kong," VII, no. 1 (January 2, 1976): 6-7.

*Business Asia*, "The Business Outlook: Hong Kong," VIII, no. 20 (May 14, 1976): 160.

*Business Asia*, "The Business Outlook: Hong Kong," VIII, no. 47 (November 19, 1976): 376.

*Business Asia*, "The Business Outlook: Japan," III, no. 8 (February 25, 1972): 62.

*Business Asia*, "The Business Outlook: Korea," IV, no. 4 (January 26, 1973): 30.

*Business Asia*, "The Business Outlook: Korea," IX, no. 15 (April 15, 1977): 120.

*Business Asia*, "The Business Outlook: Singapore," III, no. 29 (July 21, 1972): 230

*Business Asia*, "The Business Outlook: Singapore," III, no. 48 (December 1, 1972): 382.

*Business Asia*, "The Business Outlook: Singapore," IV, no. 34 (August 24, 1973): 271.

*Business Asia*, "The Business Outlook: South Korea," III, no. 1 (January 7, 1972): 6.

*Business Asia*, "The Business Outlook: Taiwan," III, no. 47 (November 24, 1972): 374.

*Business Asia*, "The Business Outlook: Taiwan," IV, no. 18 (May 4, 1973): 142.

*Business Asia*, "The Business Outlook: Taiwan," VI, no. 26 (June 27, 1975): 208.

*Business Asia*, "The Business Outlook: Taiwan," VII, no. 3 (January 16, 1976): 24.

*Business Asia*, "The Controversy Over Strategic Spratly Islands," VII, no. 26 (June 25, 1976): 208.

*Business Asia*, "Union Carbide in Large 50:50 Joint Venture in Korea," VI, no. 9 (February 28, 1975): 71-72.

*Business Asia*, "US\$400 Million Opportunity," X, no. 18 (May 5, 1978): 139.

*Business Asia*, "US-Australian Liberalizations Broaden Hopes for China Trade; A Look at China's Relations With Thailand, Indonesia," II, no. 25 (June 18, 1971): 193.

*Business Asia*, "US Exhibit in Hong Kong," IV, no. 19 (May 11, 1973): 149.

*Business Asia*, "US Exhibition in Singapore," IV, no. 15 (April 13, 1973): 120.

*Business Asia*, "US Investment in Asia Shows Shifting Patterns And Manufacturing Surge," IX, no. 43 (October 28, 1977): 339-341.

*Business Asia*, "US Investment in Asia Shows Shifting Patterns And Overall Decline," X, no. 46 (November 17, 1978): 366-367.

*Business Asia*, "US Presence at Canton Fair Makes Little Impact During First Two Weeks," III, no. 17 (April 28, 1972): 129-130.

*Business Asia*, "US Steel Invests in Taiwan," IV, no. 36 (September 7, 1973): 286.

*Business Asia*, "US Trade Centers: Singapore Opened, Taiwan Planned," IV, no. 30 (July 27, 1973): 240.

*Business Asia*, "Vote of Confidence for Taiwan's Economy," III, no. 37 (September 15, 1972): 290.

*Business Asia*, "Where Investor Money Goes to in Korea," II, no. 7 (February 12, 1971): 53-54.

*Business Asia*, "Why Japan Will Resist Computer Liberalization Demands In Upcoming Economic Talks With the US," III, no. 29 (July 21, 1972): 225-226.

*Business Eastern Europe*, "Czechoslovak License-Buying on the Increase," 6, no. 22 (June 3, 1977): 172.

*Business Eastern Europe*, "Eastern Europe in Brief," 7, no. 21 (May 26, 1978): 166.

- Business Eastern Europe*, "Group Seminar in Prague Reaps Orders for US Firms, 7, no. 20 (May 19, 1978): 154-155.
- Business Eastern Europe*, "Hungary Seeks Improvements in License Buying," 6, no. 36 (September 9, 1977): 283.
- Business Eastern Europe*, "Hungary to Double License Purchases in the West," 7, no. 2 (January 13, 1978): 9.
- Business Eastern Europe*, "License Buying to Reach \$800 Million in 1980," 6, no. 6 (February 11, 1977): 44.
- Business Eastern Europe*, "Trade of Major Western Suppliers with Eastern Europe-Part III," 6, no. 21 (May 27, 1977): 164.
- Business Eastern Europe*, "Trade of Major Western Suppliers with Eastern Europe-Part I," 7, no. 21 (May 26, 1978): 164.
- Business Eastern Europe*, "Trade of Major Western Suppliers with Eastern Europe-Part I," 8, no. 28 (July 13, 1979): 220.
- Business Eastern Europe*, "US Government Trade Specialists for EE," (chart), 6, no. 51&52 (December 23, 1977): 406.
- Business Eastern Europe*, "US Trade Promotions at Upcoming EE Exhibitions and Seminars," 8, no. 16 (April 20, 1979): 124.
- Business Eastern Europe*, "Yugoslav Joint-Venture Law Expected Soon," 6, no. 42 October 21, 1977: 330-331.
- Business Europe*, "Eastern Europe at a Glance," XIV, no. 5, JA-74 (February 1, 1974): 37.
- Business Europe*, "The Value of R&D Agreements With the Soviet Union," XIII, no. 39, JA-73 (September 28, 1973): 306.
- Business International Corp. *World Sourcing Sites in Asia: Manufacturing Costs and Conditions in Hong Kong, Korea, Singapore, and Taiwan*. Hong Kong: Business International Asia/Pacific Ltd., 1979.
- Carter, Jimmy. *Keeping Faith: Memoirs of a President*. New York: Bantam, 1982.
- *White House Diary*. New York: Farrar, Straus and Giroux, 2010.

- Central Intelligence Agency. "The World Factbook: China."  
<https://www.cia.gov/library/publications/the-world-factbook/geos/ch.html>  
 (accessed October 8, 2012).
- "Chinese Vice-Premier Teng Briefed on Housing Development in Singapore,"  
*Xinhua General News Service*, November 13, 1978.
- CIA, "Détente and US-Soviet Trade," 7 March 1972,  
[http://www.foia.cia.gov/sites/default/files/document\\_conversions/89801/DOC\\_0000307809.pdf](http://www.foia.cia.gov/sites/default/files/document_conversions/89801/DOC_0000307809.pdf) (accessed September 26, 2013).
- CIA, "Soviet Economic and Technological Benefits from Détente," Intelligence Report, February 1974, ER IR 74-2,  
[http://www.foia.cia.gov/sites/default/files/document\\_conversions/89801/DOC\\_0000380725.pdf](http://www.foia.cia.gov/sites/default/files/document_conversions/89801/DOC_0000380725.pdf) (accessed September 26, 2013).
- CIA, "The Soviet Economy as a Factor in US-Soviet Political Relations," 7 March 1972, CIA,  
[http://www.foia.cia.gov/sites/default/files/document\\_conversions/89801/DOC\\_0000307809.pdf](http://www.foia.cia.gov/sites/default/files/document_conversions/89801/DOC_0000307809.pdf) (accessed September 26, 2013).
- Congressional Research Service, Library of Congress. *Technology Transfer and Scientific Cooperation Between the United States and the Soviet Union: A Review*. Prepared for the House Subcommittee on International Security and Scientific Affairs of the Committee on International Relations. 95<sup>th</sup> Cong., 1<sup>st</sup> sess., May 26, 1977.
- Cony, Edward R. Cony and Peter R. Kann. *Wall Street Journal*, October 4, 1977.
- Dale, Jr., Edwin L. "Joint Companies With Reds Seen." *New York Times*, July 13, 1970.
- Deng, Xiaoping. *Selected Works of Deng Xiaoping (1975-1982)*. Translated by the Bureau for the Compilation and Translation of Works of Marx, Engels, Lenin and Stalin Under the Central Committee of the Communist Party of China. Beijing: Foreign Languages Press, 1984.
- Faison, Seth. "Condolence Calls Put Rare Light on Deng's Family." *New York Times*, February 22, 1997.
- Ford, Gerald R. *A Time to Heal: The Autobiography of Gerald R. Ford*. New York: Harper & Row, 1979.
- Gale Cengage Learning. Records of the National Council for United States-China Trade 1973-1983 Collection. Gerald R. Ford Presidential Library. *Archives Unbound*.

<http://www.galetrials.com/products.aspx?pid=2831&marketID=2&trialID=42002&contactID=125> (accessed October 19 and 21, 2012).

Greenspan, Alan. *The Age of Turbulence: Adventures in a New World*. New York: Penguin Press, 2007.

Gwertzman, Bernard. *New York Times*, April 12, 1974.

Hagley Museum and Library. Accession 1411. National Association of Manufacturers Archives.

Hoyt, Ronald E. *Winners and Losers in East-West Trade: A Behavioral Analysis of U.S.-Soviet Détente (1970-1980)*, (New York: Praeger, 1983).

“Japan Pulls Back on Fiber Investments.” International. *Chemical Week*, August 18, 1976.

Joint Economic Committee. *Soviet Economy in a New Perspective: A Compendium of Papers, October 14, 1976*. Joint Economic Committee of the Congress of the United States, 94<sup>th</sup> Cong., 2<sup>nd</sup> sess. 1976.

Kilpatrick, Carroll. “U.S. Ends Ban on China Trade; Items Are Listed.” *New York Times*, June 11, 1971.

Kissinger, Henry. *On China*. Rev. ed. New York: Penguin, 2012.

----- . *White House Years*. 1979. Reprint, New York: Simon & Schuster, 2011.

----- . *Years of Renewal*. New York: Simon & Schuster, 1999.

----- . *Years of Upheaval*. 1982. Reprint, New York: Simon & Schuster, 2011.

Kristof, Nicholas D. “China Sees Singapore As a Model for Progress.” *The World. The New York Times*, August 9, 1992.

MacFarquhar, Roderick. *Sino-American Relations, 1949-71*. Documented and introduced by Roderick MacFarquhar. New York: Praeger, 1972.

Ministry of Foreign Affairs of Japan, “Joint Communiqué of the Government of Japan and the Government of the People’s Republic of China, September 29, 1972,” MOFA, <http://www.mofa.go.jp/region/asia-paci/china/joint72.html> (accessed October 11, 2013).

*New York Times*, May 25, 1970.

*New York Times*, July 20, 1976.



*New York Times*, July 23, 1973.

Nixon, Richard M. "Asia after Viet Nam." *Foreign Affairs* 46, no. 1 (October 1967): 111-125.

-----, *The Memoirs of Richard Nixon*. New York: Grosset & Dunlap. 1978.

"Now, Ford's Long March." *Newsweek*, United States Edition, National Affairs, December 15, 1975.

Phalon, Richard. "Stans Sees Slow Growth in China Trade." *New York Times*, February 3, 1972.

Pregelj, Vladimir N. "Most-Favored-Nation (Normal-Trade-Relations) Policy of the United States." The Committee for the National Institute for the Environment, [http://www.iatp.org/files/Most-Favored-Nation\\_Normal-Trade-Relations\\_pol.htm](http://www.iatp.org/files/Most-Favored-Nation_Normal-Trade-Relations_pol.htm) (accessed September 24, 2013).

"Rumania Stresses Heavy Industry." *New York Times*, January 14, 1973.

Shabad, Theodore. "Computer Accord Signed by Soviet." *New York Times*, October 24, 1973.

"South Korea Battles Fertilizer Glut." International. *Chemical Week*, April 13, 1977.

"Success in the Drug Business Runs in the Family." People. *Chemical Week*, October 6, 1976, 46.

"The Houston-Peking Axis: Oil for China's lamps." *U.S. News and World Report*, December 22, 1975, 27.

"Toray Industries' Hiroshi Imanishi: Fortune Favors His Hobbies, Business." People. *Chemical Week*, March 26, 1975, 52.

United States Census Bureau. "Trade in Goods with China." <http://www.census.gov/foreign-trade/balance/c5700.html> (accessed October 8, 2012).

U.S. Congress. Senate. Committee on Governmental Affairs. Permanent Subcommittee on Investigations. *Transfer of United States high technology to the Soviet Union and Soviet bloc nations: Hearings before the Permanent Subcommittee on Investigations of the Committee on Governmental Affairs*. 97<sup>th</sup> Cong., 2<sup>nd</sup> sess., May 4, 5, 6, 11, 11, and 12, 1982.

- U.S. Congress. *The Extent of the Government's Control of China's Economy, and Implications for the United States*. Hearing Before the U.S.-China Economic and Security Review Commission. 110<sup>th</sup> Cong., 1<sup>st</sup> sess., May 24-25, 2007.
- U.S. Department of State. *Foreign Relations of the United States, 1969-1976*. Volume XVII, "China 1969-1972" (Washington, DC: GPO, 2006), 320-321, 652-653, 905, 1029-1030.
- U.S. International Trade Commission. "Assessment of the Economic Effects on the United States of China's Accession to the WTO." Investigation No. 332-403. Publication 3229. September 1999.
- "U.S. Trade Relations with the Soviet Union, Eastern European Countries and the People's Republic of China, Source: Twenty-First Annual Report of the President of the United States on the Trade Agreements Program-1976." Hagley Museum and Library. Accession 1411. National Association of Manufacturers, Series 9, Committee Records, Box 159, Folder: "October 19, 1977 International Trade Subcommittee Meeting, Tab: East West Trade."
- "Watson Doubtful of Soviet Computer Deal." *New York Times*, October 8, 1970.
- "Why Ford Went to China." *U.S. News and World Report*, December 8, 1975.
- Wilson Center, "Agreement Between the Czechoslovak and Soviet Ministries of the Interior on Cooperation From the Summer of 1976 until 1980," June 04, 1976, Document Summary, Wilson Center Digital Archive: International History Declassified, <http://digitalarchive.wilsoncenter.org/document/113304> (accessed September 21, 2013).
- Wilson Center, "Protocol on Exchange of Employees and Information in the Scientific, Technical and Security Fields for the Year 1974," February 11, 1974, Document Summary, Wilson Center Digital Archive: International History Declassified, <http://digitalarchive.wilsoncenter.org/document/113561> (accessed September 20, 2013).
- Wilson Center, "Protocol on Cooperation Between the Interior Ministries of the Czechoslovak Socialist Republic and the Soviet Union in 1976," January 23, 1976, Document Summary, Wilson Center Digital Archive: International History Declassified, <http://digitalarchive.wilsoncenter.org/document/113505> (accessed September 21, 2013).
- Wilson Center, "Protocol on Steps to Increase Coordination Between the Czechoslovak Ministry of the Interior and the Soviet Ministry of the Interior in 1975," January 22, 1975, Document Summary, Wilson Center Digital Archive: International History Declassified,

<http://digitalarchive.wilsoncenter.org/document/113491> (accessed September 20, 2013).

Wilson Center, "Record of Discussion and Text of Coordination Plan on Operative Technology from the Summer of 1972 Through 1974, Reached by the Committee of State Security (KGB) of the USSR and the Czechoslovak Ministry of the Interior," July 14, 1972, Document Summary, Wilson Center Digital Archive: International History Declassified, <http://digitalarchive.wilsoncenter.org/document/113486> (accessed September 20, 2013).

Xue Muqiao. *China's Socialist Economy*. Rev. ed. Beijing: Foreign Languages Press, 1986.

Yu Guangyan. *Deng Xiaoping Shakes the World: An Eyewitness Account of China's Party Work Conference and the Third Plenum (November-December, 1978)*. Edited by Ezra F. Vogel and Steven I. Levine. Norwalk, CT: EastBridge, 2004.

## Secondary Sources

Agmon, Tamir, and Mary Ann Von Glinow, eds. *Technology Transfer in International Business*. New York: Oxford University Press, 1991.

Allinson, Gary D. *Japan's Postwar History*. 2<sup>nd</sup> ed. Ithaca, NY: Cornell University Press, 2004.

Bark, Taeho Bark and Hwy-Chang Moon. "The Role of Inward FDI: A Case Study of Foreign Firms in the Republic of Korea." In *Multinationals and Economic Growth in East Asia: Foreign direct investment, corporate strategies, and national economic development*, edited by Shujiro Urata, Chia Siow Yue, and Fukunari Kimura, 157-180. New York: Routledge, 2006.

Bayard, Thomas, James Orr, Joseph Pelzman, and Jorge Perez-Lopez. "MFN Tariff Treatment of Imports from China: Effects on U.S. Employment." *Journal of Policy Modeling* 3, no. 3 (1981): 361-373.

Berman, Harold J. "Joint Ventures Between United States Firms and Soviet Economic Organizations." *Maryland Journal of International Law* 1, no. 2 (1976): 139.

Brandt, Loren, and Thomas G. Rawski, eds. *China's Great Economic Transformation*. New York: Cambridge University Press, 2008.

- Branson, William H., Herbert Giersch, and Peter G. Peterson. "Trends in United States International Trade and Investment since World War II." In *The American Economy in Transition*, edited by Martin Feldstein, 183-273. Chicago: University of Chicago Press, 1980.
- Buckley, Peter J. *Foreign Direct Investment, China and the World Economy*. New York: Palgrave Macmillan, 2010.
- Bucy, J. Fred Bucy. "On Strategic Technology Transfer to the Soviet Union." *International Security* 1, no. 4 (Spring, 1977): 25-43.
- Chu, Cindy Yik-Yi. *Chinese Communists and Hong Kong Capitalists*. New York: Palgrave Macmillan, 2010.
- Cowie, Jefferson. *Stayin' Alive: The 1970s and the Last Days of the Working Class*. New York: The New Press, 2010.
- Craig, Albert M. "The Rim Nations of East Asia: Vietnam, Taiwan, Korea, Hong, Kong, and Singapore." In *East Asia: Tradition and Transformation*, edited by John K. Fairbank, Edwin O. Reischauer, and Albert M. Craig, 876-929. Rev. ed. Boston: Houghton Mifflin, 1989.
- Cruikshank, Jeffrey L., and David B. Sicilia. *The Engine That Could: 75 Years of Values-Driven Change at Cummins Engine Company*. Boston: Harvard Business School Press, 1997.
- Culliton, Barbara J. "Four Modernizations" Lead to Closer Sino-U.S. Science Ties." *Science*, New Series, 201, no. 4355 (August 11, 1978): 512-513.
- Cumings, Bruce. *Korea's Place in the Sun: A Modern History*. New York: W. W. Norton, 1997.
- Dower, John W. *Embracing Defeat: Japan in the Wake of World War II*. New York: W.W. Norton & Company, 1999.
- Dyer, Davis, and David B. Sicilia. *Labors of a Modern Hercules: Evolution of a Chemical Company*. Boston: Harvard Business School Press, 1990.
- Evans, Richard. *Deng Xiaoping and the Making of Modern China*. Rev. ed. New York: Penguin Books, 1997.
- Fairbank, John King, and Merle Goldman. *China: A New History*. Cambridge, MA: Belknap Press,

- Fairbank, John K. "The People's Republic," In *East Asia: Tradition and Transformation*, edited by John K. Fairbank, Edwin O. Reischauer, and Albert M. Craig, 876-929. Rev. ed. Boston: Houghton Mifflin, 1989.
- Feinstein, Charles, and Christopher Howe, eds. *Chinese Technology Transfer in the 1990s: Current Experience, Historical Problems and International Perspectives*. Lyme, NH: Edward Elgar, 1997.
- Fewsmith, Joseph. *Dilemmas of Reform in China: Political Conflict and Economic Debate*. Armonk, NY: M. E. Sharpe, 1994.
- Fingar, Thomas, and Victor H. Li, eds. "United States-China Relations in 1979: Agreements, Protocols, Accords, and Understandings." *Chinese Law and Government* XIV, no. 1 (Spring 1981): 3-32.
- Friedman, George, and Meredith Lebard. *The Coming War With Japan*. New York: St. Martin's Press, 1991.
- Gao, James Z. "Rediscovery of Western Science and Technology and Definition of Chinese Foreign Policy." *China Studies* 6 (2000): 29-48.
- Gittings, John. *The Changing Face of China: From Mao to Market*. New York: Oxford University Press, 2006.
- Goto, Akira, and Hiroyuki Odagiri. "Building technological capabilities with or without inward direct investment: the case of Japan." In *Competitiveness, FDI and Technological Activity in East Asia*, edited by Sanjaya Lall and Shujiro Urata, 83-102. Northampton, MA: Edward Elgar: 2003.
- Grub, Phillip Donald, and Jian Hai Lin. *Foreign Direct Investment in China*. New York: Quorum Books, 1991.
- Haggard, Stephan. "The Politics of Industrialization in The Republic of Korea and Taiwan." In *Achieving Industrialization in East Asia*, edited by Helen Hughes, 260-282. New York: Cambridge University Press, 1988.
- Hale, Galina, and Cheryl Long. *Foreign Direct Investment in China: Winners and Losers*. Hackensack, NJ: World Scientific Publishing, 2012.
- Halpern, Nina P. "Learning From Abroad: Chinese Views of the East European Experience, January 1977-June 1981." *Modern China* 11, no. 1 (January 1985): 77-109.
- Harding, Harry. *A Fragile Relationship: The United States and China Since 1972*. Washington, DC: The Brookings Institution, 1992.

- , *China's Second Revolution: Reform After Mao*. Washington, DC: The Brookings Institution, 1987.
- Harvey, David. *A Brief History of Neoliberalism*. New York: Oxford University Press, 2005.
- Ho, Samuel P. S., and Ralph W. Huenemann. *China's Open Door Policy: The Quest for Foreign Technology and Capital*. Vancouver: University of British Columbia Press, 1984.
- Hoyt, Ronald E. *Winners and Losers in East-West Trade: A Behavioral Analysis of U.S.-Soviet Détente (1970-1980)*. New York: Praeger, 1983.
- Huang, Kailai. "American Business and the China Trade Embargo in the 1950s." *Essays in Economic and Business History* (2001): 33-48.  
[http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=5&ved=0CEkQFjAE&url=http%3A%2F%2Fwww.ebhsoc.org%2Fjournal%2Findex.php%2Fjournal%2Farticle%2Fdownload%2F131%2F126&ei=OUqiUMX6D Ori0gGwqoDoDg&usg=AFQjCNGl1jEkPo\\_NoBz2Rc4NmjICjkXkMA](http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=5&ved=0CEkQFjAE&url=http%3A%2F%2Fwww.ebhsoc.org%2Fjournal%2Findex.php%2Fjournal%2Farticle%2Fdownload%2F131%2F126&ei=OUqiUMX6D Ori0gGwqoDoDg&usg=AFQjCNGl1jEkPo_NoBz2Rc4NmjICjkXkMA)  
 (accessed November 13, 2012).
- Huang, Yasheng. *FDI in China: An Asian Perspective*. Singapore: Institute of Southeast Asian Studies, 1998.
- Huff, W.G. *The Economic Growth of Singapore: Trade and Development in the twentieth century*. New York: Cambridge University Press, 1994.
- Hughes, Helen, ed. *Achieving Industrialization in East Asia*. New York: Cambridge University Press, 1988.
- Iriye, Akira. *Across the Pacific: An Inner History of American-East Asian Relations*. Rev. ed. Chicago: Imprint Publications, 1992.
- Jian, Chen. *Mao's China and the Cold War*. Chapel Hill, NC: University of North Carolina Press, 2001.
- Kirby, William C., Robert S. Ross, and Gong Li, eds. *Normalization of U.S.-China Relations: An International History*. Cambridge, MA: Harvard University Asia Center, 2005.
- Kleinberg, Robert. *China's "Opening" to the Outside World: The Experiment with Foreign Capitalism*. Boulder, CO: Westview Press, 1990.
- Kojima, Kiyoshi. "Transfer of Technology to Developing Countries: Japanese Type versus American Type." *Hitotsubashi Journal of Economics* 17, no 2 (February 1977): 1-14.

- Lardy, Nicholas R. *Foreign Trade and Economic Reform in China, 1978-1990*. (New York: Cambridge University Press, 1992).
- Levy-Livemore, Amnon. *Handbook on the Globalization of the World Economy*. Northampton, MA: Edward Elgar, 1998.
- MacMillan, Margaret. *Nixon and Mao: The Week That Changed the World*. New York: Random House, 2007.
- Meyer, David R. *Hong Kong as a Global Metropolis*. New York: Cambridge University Press, 2000.
- Naughton, Barry. "Deng Xiaoping: The Economist." In *Deng Xiaoping: Portrait of a Chinese Statesman*, edited by David Shambaugh. 83-106. New York: Oxford University Press, 1995.
- , *Growing Out of the Plan: Chinese Economic Reform, 1978-1993*. New York: Cambridge University Press, 1995.
- Oksenberg, Michel. "A Decade of Sino-American Relations." *Foreign Affairs* 61, no. 1 (Fall 1982): 175-195.
- Parry, Thomas G. "The Role of Foreign Capital in East Asian Industrialization, Growth and Development." In *Achieving Industrialization in East Asia*, edited by Helen Hughes, 95-128. New York: Cambridge University Press, 1988.
- Pearson, Margaret M. "China and the Norms of the Global Economic Regime." *China Studies* 6 (2000): 147-172.
- , *Joint Ventures in the People's Republic of China: The Control of Foreign Direct Investment Under Socialism*. Princeton, NJ: Princeton University Press, 1991.
- Pedersen, James F. "Joint Ventures in the Soviet Union: A Legal and Economic Perspective." *Harvard International Law Journal* 16 (1975): 390-439.
- Pyle, Kenneth B. *Japan Rising: The Resurgence of Japanese Power and Purpose*. New York: Century Foundation, 2007.
- Reardon, Lawrence C. "Learning How to Open the Door: A Reassessment of China's Opening Strategy." *The China Quarterly* no. 155 (September 1998): 479-511.
- , *The Reluctant Dragon: Crisis Cycles in Chinese Foreign Economic Policy* (Seattle: University of Washington Press, 2002), 147.

- Riedel, James. "Economic Development in East Asia: Doing What Comes Naturally?" In *Achieving Industrialization in East Asia*, edited by Helen Hughes, 1-38. New York: Cambridge University Press, 1988.
- Robinson, Richard D., ed. *Foreign Capital and Technology in China*. New York: Praeger, 1987.
- Ross, Robert S., ed. *China, the United States, and the Soviet Union: Tripolarity and Policy Making in the Cold War*. Armonk, NY: M.E. Sharpe, 1993.
- , *Negotiating Cooperation: The United States and China 1969-1989*. Stanford: Stanford University Press, 1995.
- Samuels, Richard J. "Reinventing Security: Japan Since Meiji" *Daedalus* 120, no. 4, Searching for Security in a Global Economy (Fall, 1991): 47-68.
- , *"Rich Nation, Strong Army": National Security and the Technological Transformation of Japan*. Ithaca, NY: Cornell University Press, 1994.
- Schnepp, Otto, Mary Ann Von Glinow, and Arvind Bhambri. *United States-China Technology Transfer*. Englewood Cliffs, NJ: Prentice-Hall, 1990.
- Schultz, Jeffrey. "Conclusion: The Four Modernizations Reconsidered." In *China's Four Modernizations: The New Technological Revolution*, edited by Richard Baum, 267-287. Boulder, CO: Westview Press, 1980.
- Shambaugh, David. "Deng Xiaoping: The Politician," in *Deng Xiaoping: Portrait of a Chinese Statesman*, edited by David Shambaugh. 49-83. New York: Oxford University Press, 1995.
- Shapiro, James E., Jack N. Behrman, William A. Fischer, and Simon G. Powell. *Direct Investment and Joint Ventures in China: A Handbook for Corporate Negotiators*. Westport, CT: Quorum Books, 1991.
- Smith, Kathlin. "The Role of Scientists in Normalizing U.S.-China Relations: 1965-1979," in Allison L. C. de Cerreno and Alexander Keynan, eds., "The Role of Scientists in Mitigating International Discord," *Annals of the New York Academy of Sciences* 866 (December 1998): 114-136.
- Sokoloff, Georges. *The Economy of Détente: The Soviet Union and Western Capital*. Translated by Jean Kirby. New York: Berg, 1987.
- Stein, Judith. *Pivotal Decade: How the United States Traded Factories for Finance in the Seventies*. New Haven, CT: Yale University Press, 2010.



- Sun, Haishun. *Foreign Investment and Economic Development in China: 1979-1996*. Brookfield, VT: Ashgate, 1998.
- Tucker, Nancy Bernkopf. *China Confidential: American Diplomats and Sino-American Relations, 1945-1996*. New York: Columbia University Press, 2001.
- , *Taiwan, Hong Kong, and the United States, 1945-1992: Uncertain Friendships*. New York: Twayne Publishers, 1994.
- UAW International Affairs Department. *Free Trade & Worker Protection*. Publication 36M/8/73. Detroit: International Union, United Automobile, Aerospace & Agricultural Workers of America, 1976.
- Vogel, Ezra F. *Deng Xiaoping and the Transformation of China*. Cambridge, MA: Belknap Press, 2011.
- Wenqian, Gao. *Zhou Enlai: The Last Perfect Revolutionary—A Biography*. Translated by Peter Rand and Lawrence R. Sullivan. New York: PublicAffairs, 2007.
- Woo, Jung-en. *Race to the Swift: State and Finance in Korean Industrialization*. New York: Columbia University Press, 1991.
- Yang, Benjamin. *Deng: A Political Biography*. Armonk, NY: M.E. Sharpe, 1998.